INSTALLATION AND OPERATING INSTRUCTION

INTERNAL GAS WATER HEATER

Model eternity I26

THIS HOT WATER UNIT IS NOT FOR POOL OR SPA HEATING

WARNING : If the information in this instruction is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

- Do not store or use gasoline or other flammable vapours and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

INSTALLER : Leave this manual with the appliance.
CONSUMER : Retain this manual for future reference.

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SPECIFICATIONS

Model number	eternity I26
Type of appliance	Gas continuous flow water heater
Approved gas type	Natural or Propane
Installation	Indoor only / Wall hanging
Set point temperature (without remote)	Factory setting - 50ºC
Temperature range with remote	Remote controller : 37 - 75ºC
Exhaust system	Direct vent - forced combustion
Dimensions	Height 610mm Width 350mm Depth 210mm
Weight	20kg
Connections	Gas R3/4(20A) Water inlet R3/4(20A) Hot water outlet R3/4(20A)
Ignition system	Direct electronic ignition
Electrical consumption	Normal 62.3watts Standby Main/Bath remote controller on 3.4watts
Recommended minimum water supply pressure	150kPa
Maximum water supply pressure	1200kPa
Power supply	Appliance AC240V - 50Hz Remote controller DC12V (digital)

SPECIFICATIONS

Safety devices	Flame failure - Flame rod
	Over heat switch 100℃
	Over heat limit 95℃
	Thermal fuse 185℃
	Fan motor rpm check - PCB
	Over current - Fuse (5 amp)
Remote controller (option)	CMR-2251 Main control kitchen / laundry
	YST-2251/S Bathroom control / Ensuite
Remote controller cable (option)	Nonpolarized two core cable
Clearance from combustibles	Top of heater 30cm Front of heater 15cm Sides of heater 5cm Back of heater 0cm Floor 30cm Vent pipe 0cm

PERFORMANCE

		MAXIMUM	MINIMUM
Gas consumption	Natural Gas	55.6kW(200MJ)	6.0kW(22MJ)
	Propane Gas	54.2kW(194MJ)	6.0kW(22MJ)
Gas supply pressure	Natural Gas	1.13kPa	1.13kPa
	Propane Gas	2.75kPa	2.75kPa
Mainfold gas pressure	Natural Gas	0.60kPa	0.10kPa
	Propane Gas	0.55kPa	0.10kPa
Hot water capacity		2.2-24.6L/min	
Maximum hot water capacity (25℃ rise)		26L/min	

FEATURES

eternity I26 is a new advanced technology water heater. It produces hot water, continuously. For optimal performance, we recommend the use of the optional remote controllers.

eternity I26 will never run out of hot water. Hot water is available as long as a hot water faucet is open.

As soon as a hot water faucet is opened, a signal goes to the microprocessor to start the burner operation. Closing the faucet sends the shut down signal to stop the burner.
eternity I26 is furnished with an electronic ignition system.
This feature eliminates gas usage when no hot water is being used, leading to significant savings in energy and money.

The advanced control system uses a sensor to continuously maintain the outgoing water temperature.

The safety protections of the microprocessor include limiting the maximum temperature of the hot water.

A fault monitor will display malfunction codes on the remote controllers. This simplifies trouble shooting during service calls.

eternity I26 is designed to prevent varying temperature of hot water when the faucet is cycled on and off. There is also a quick response mode for rapid heating.

The dimensions of eternity I26 use less wall space and no floor space.

The remote controllers are a crisp, modern design to blend in any decor.

Endless loop in input and output control ensures a stable flow of hot water.

Low NOx. The Rich - Lean design of the burner produces minimum nitrous oxides.

Greater reliability of electric components due to the coated control circuit board.

FOR YOUR SAFETY READ BEFORE OPERATING

For your safety and proper use of the unit.

Read and understand the following important symbols before use.
The cases shown below are classified by the degree of risk and damage.
Be sure to follow the instruction symbols for your safety.

⚠ **Danger**	"Danger" indicates that serious injuries or even death to the user may result if the instruction is neglected and the unit is mishandled.
⚠ **Warning**	"Warning" indicates the possibility that serious injuries or even death to the user may result if the instruction is neglected and the unit is mishandled.
⚠ **Caution**	"Caution" indicates the possibility that some injuries to the user, and/or material damage may result if the instruction is neglected and the unit is mishandled.

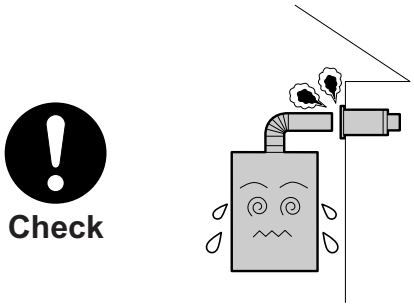
Each mark indicates:

	General instruction
	Electric shock
	Fire
	High temperature
	Prohibited
	No flammables
	Do not touch
	Do not disassemble.
	Never fail to do.
	Ground

FOR YOUR SAFETY READ BEFORE OPERATING

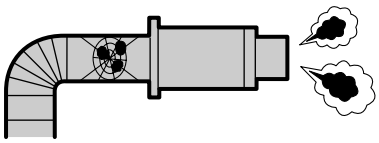
⚠ Danger

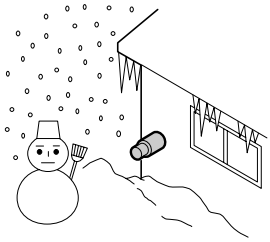
Disconnection of the vent pipes can cause a shortage of oxygen, fire, or overheating.



Check to make sure the flue system is properly connected.
Leaking exhaust gas indoors poses a danger if the pipes are disconnected during operation.

Blockage in the vent pipes.

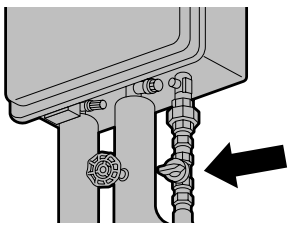


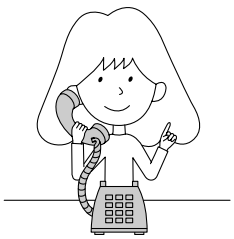


Make sure the flue system is clear of any blockage such as bird's nest, or debris such as leaves, twigs or weeds.
The blockage may cause the leakage of the exhaust gas indoors during operation, which is dangerous.

In winter make sure snow does not block the vent pipe.
Take necessary measures to prevent snow drifts from blocking the outlet/inlet of the flue pipe.

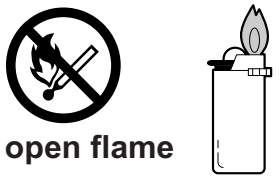
Check for gas leak. (May cause fire.)

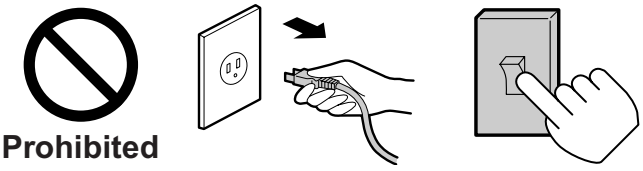




If a gas leak is noticed, stop using the unit immediately and close the gas valve, then contact your service person, or the gas supply company.

Do not light any appliance, disconnect the power plug or touch any electric switch.



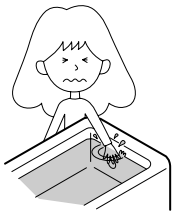


FOR YOUR SAFETY READ BEFORE OPERATING

⚠ Warning

Caution to prevent scalding.

Caution

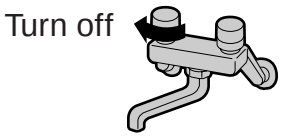


Check the water temperature by hand first before using shower or stepping into the bath tub.
Do not change the temperature setting while others are running hot water.
Gush of hot water may cause scalding or cold water may cause discomfort.

Measures to be taken in case of emergency.

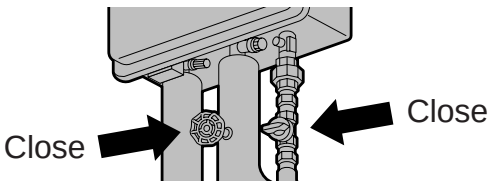
When there is an emergency such as earthquakes, hurricanes or fire follow these procedures.

1. Turn off the hot water faucet.

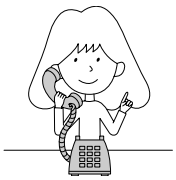


2. Close the gas valve and the main water valve.

3. Turn off the main power.
   Warning, in case of gas leakage, first close the gas valve and wait for the leaked gas to disperse, then turn off the main power supply.



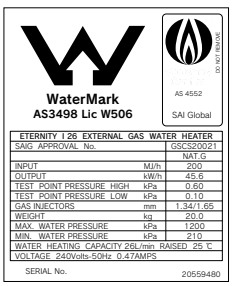
4. Contact your service technician, or gas supplier.

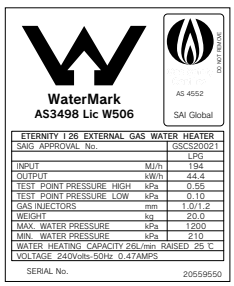


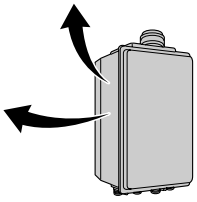
Confirm type of gas and power supply.
(Wrong gas type may cause incomplete combustion, explosive ignition or fire.)

Check

Make sure to use the correct gas type as well as power supply (voltage/frequency) as indicated on the RATING LABEL located on the side, of the cabinet.
Natural Gas or Propane Gas are stated on the GAS TYPE LABEL.





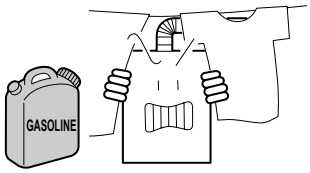


FOR YOUR SAFETY READ BEFORE OPERATING

⚠ Warning

Caution for flammable items.
(May cause fire or explosion.)

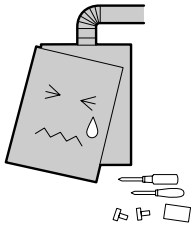
Warning



Do not place any flammable items such as gasoline, benzene, or spray cans near the appliance.
Do not use them around the heater or the exhaust vent terminal.
Take special care.

Disassembly, repair or modification of the unit may cause fire, electric shock or other accidents.

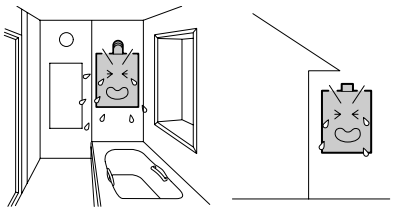
Do Not Disassemble



Do not disassemble or modify the units.
Never fail to ask for professional assistance from your dealer for installation, removal, auxiliary installation work, or connection to solar units.

No installation outdoors or in the bathroom.
(May cause fire or electric shock or other accidents.)

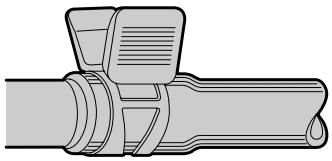
Prohibited



The unit is for indoor installation use.
Never install outdoors or in the bathroom.
Steam from the shower or bath can cause corrosion or malfunction.

No rubber piping.
(May cause gas leakage or fire.)

Prohibited

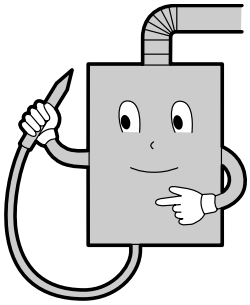


Rubber pipe should never be used for gas piping line.

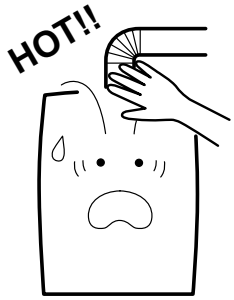
FOR YOUR SAFETY READ BEFORE OPERATING

⚠ Caution

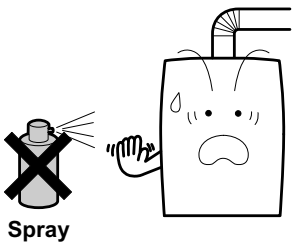
Be sure to electrically earth the unit.



Do not touch the exhaust vent pipe and water heater during or immediately after operation.



Do not use hair spray or spray detergent in the vicinity.



Do not install in locations where excessive dust or debris will be in the air.

Do not wipe remote controller with gasoline, benzene, or detergents.

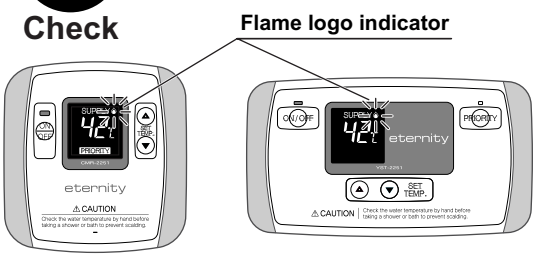
Do not turn off the water heater or change the water temperature while someone is bathing or washing. That may result in scalds or burns.

FOR YOUR SAFETY READ BEFORE OPERATING

⚠ Caution

Confirm ignition, combustion and extinction.

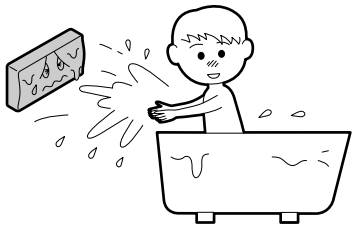
Check



Always check Flame logo indicator for combustion and that the unit has shut down by checking the operation lamp on the Main or Bath remote controller.

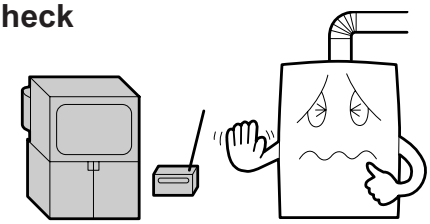
Do not allow the remote controller to get wet. (May cause controller to fail.)

Check



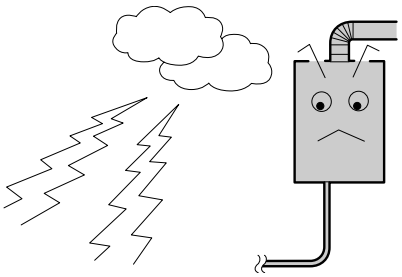
Do not install near electric appliances.

Check



When installed near the TV or radio, it may cause picture disturbance or sound disturbance.

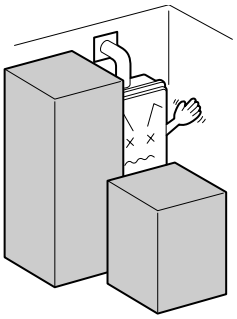
Measures to be taken for lightning possibility. (May cause failure.)



Temporary voltage surge caused by lightning can damage the electronic parts.
Turn off the main power when you hear thunder.

Provide adequate space around the unit for service.

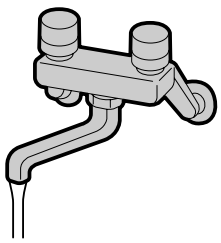
Check



Make sure to have enough room around the unit to ensure space necessary for checking and maintenance.

Use for approved applications only.

Check

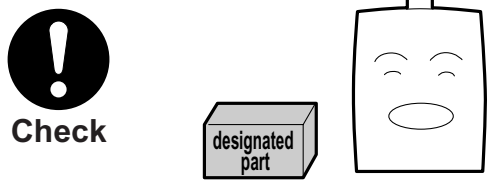


Do not use the unit for other applications.

FOR YOUR SAFETY READ BEFORE OPERATING

⚠ Caution

Use only genuine factory designated parts, and accessories.



Instruction in case the unit is used in lime-rich water (hard water) area.

Drain the residual hot water in the unit away. Otherwise the lime may harden and deposit in the pipe, causing lower efficiency and damage to the unit. (refer to page 14)

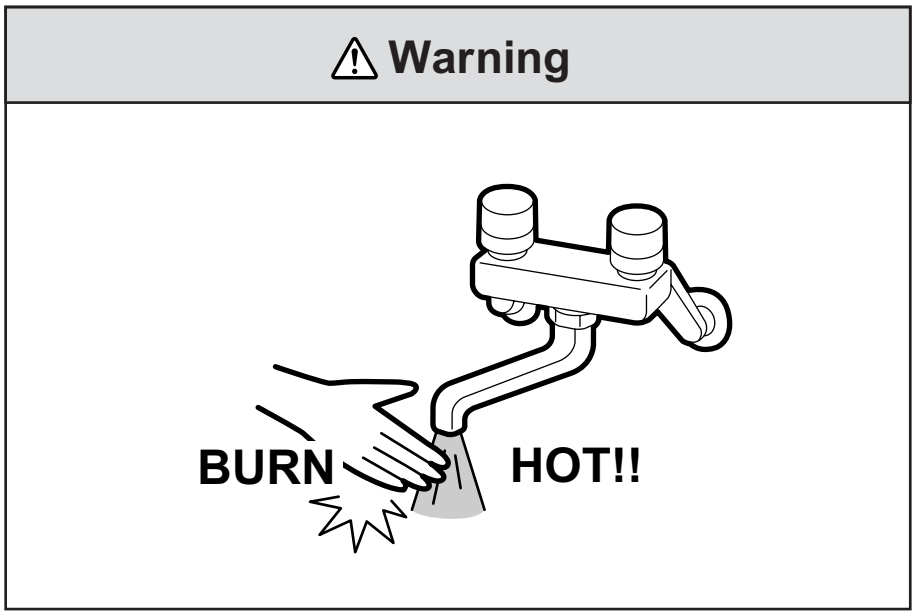
eternity I26 is designed primarily for single family home use.

Notice:
If used in a commercial application, a limited warranty applies.

Water or hot water left in the unit for a long time is not suitable for drinking or cooking. Do not drink or use for cooking.

ABOUT HOT WATER

Hot water heater temperature over 52ºC can cause severe burns instantly or death from scalding.
Children, disabled and elderly are at the highest risk of scalding.
Feel water temperature before bathing or showering.



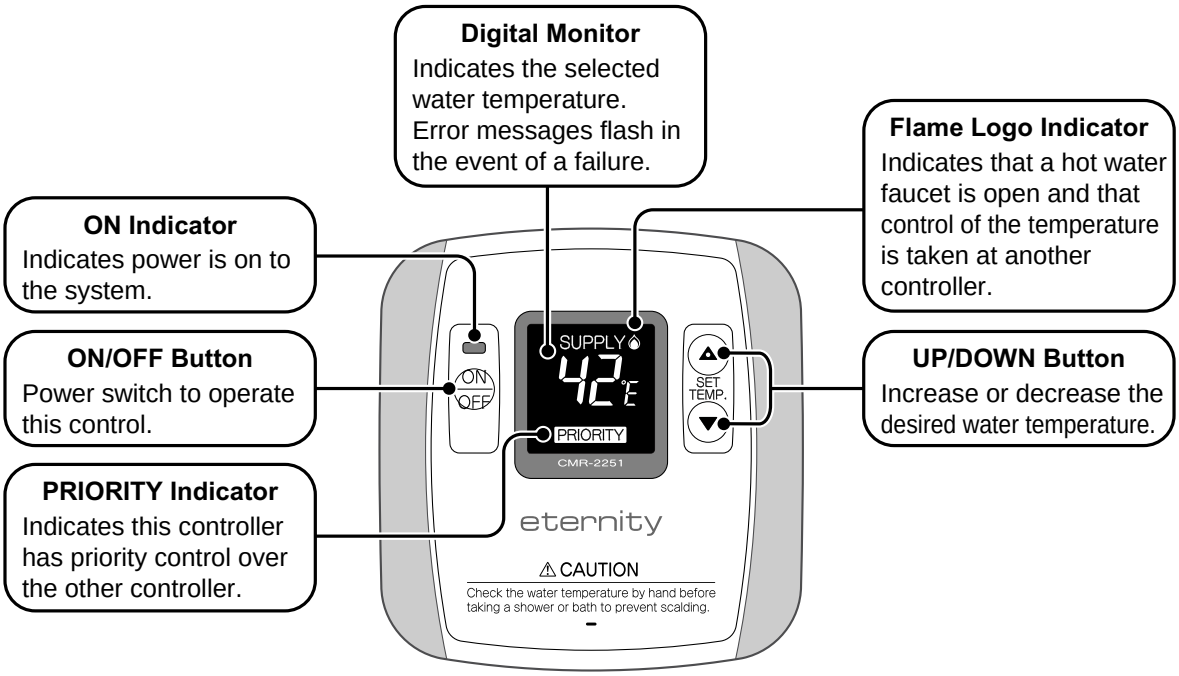
SCALDS - FIRST AID

1. **Remove clothing;** Remove all wet clothing quickly. Wet clothing retains the heat.
2. **Apply cold water for 30 minutes;** Immediately submerge the burnt area in cold water for 30 minutes to reduce the heat in the skin, preventing deeper burning.
   Never use butter, oils or ointment to cover the burn. They may retain the heat.
3. **Keep the scalded person warm;** Place a blanket around the person.
4. **Seek medical advice;** Call your medical advice hotline and describe the scald, follow their directions.

REMOTE CONTROLLER OPERATION

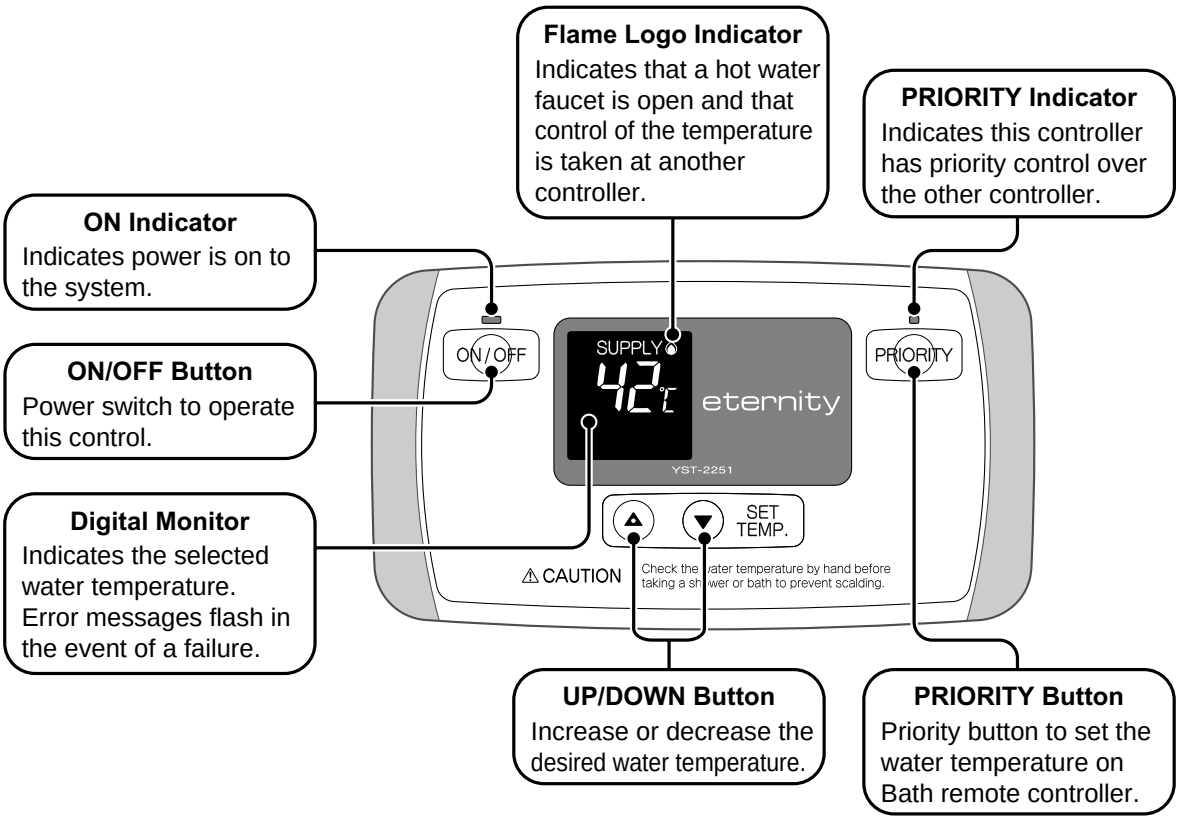
CMR-2251
(Main remote controller)

This remote controller is intended to be used in the kitchen, laundry room or utility area.


Digital Monitor
Indicates the selected water temperature. Error messages flash in the event of a failure.
Flame Logo Indicator
Indicates that a hot water faucet is open and that control of the temperature is taken at another controller.
ON Indicator
Indicates power is on to the system.
ON/OFF Button
Power switch to operate this control.
PRIORITY Indicator
Indicates this controller has priority control over the other controller.
UP/DOWN Button
Increase or decrease the desired water temperature.
SUPPLY
42°C
PRIORITY
ON OFF
SET TEMP.
CMR-2251
eternity
⚠ CAUTION
Check the water temperature by hand before taking a shower or bath to prevent scalding.

YST-2251/S
(Bath remote controller / Ensuite)

This remote controller is intended for installation in the bathroom.


Flame Logo Indicator
Indicates that a hot water faucet is open and that control of the temperature is taken at another controller.
PRIORITY Indicator
Indicates this controller has priority control over the other controller.
ON Indicator
Indicates power is on to the system.
ON/OFF Button
Power switch to operate this control.
Digital Monitor
Indicates the selected water temperature. Error messages flash in the event of a failure.
UP/DOWN Button
Increase or decrease the desired water temperature.
PRIORITY Button
Priority button to set the water temperature on Bath remote controller.
ON / OFF
SUPPLY
42°C
eternity
PRIORITY
YST-2251
SET TEMP.
⚠ CAUTION
Check the water temperature by hand before taking a shower or bath to prevent scalding.

REMOTE CONTROLLER OPERATION

Operation of Main/Bath remote controller / Ensuite.

Please read these instructions carefully before using this appliance.

1. Turn on the ON/OFF button. (refer to page 12.)

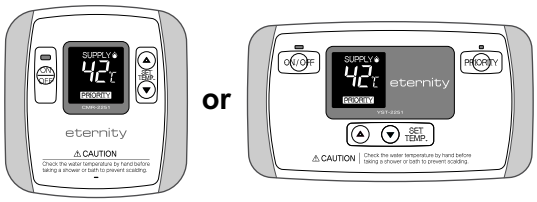
2. The temperature display will illuminate at 42ºC.

3. The priority indicator will illuminate.

4. Select hot water temperature by pushing UP/DOWN button (▲ or ▼) on the controller.

5. Turn on the hot water faucet. Flame logo indicator will illuminate after a short delay.
   This indicator will remain illuminated until the hot water faucet is turned off.

6. The hot water temperature can be altered at any time during the operation by pushing UP/DOWN button (▲ or ▼) located on the controller.



PRIORITY control. (change.)

The temperature can only be controlled by the remote controller which has the priority indication.
Priority button is only located on the Bath remote controller / Ensuite.
When the priority switch is turned on, priority control over the water temperature is changed voluntarily.

⚠ Warning

Do not turn off the water heater or change the water temperature while someone is bathing or washing. That may result in scalds or burns.

- In case of installation of both a Main remote controller and a Bath remote controller / Ensuite with priority button ON, when pushing priority button on Bath remote controller / Ensuite, the hot water temperature will read 42ºC.

- In case of installation for Bath remote controller only, when pushing priority button on it, hot water temperature will read 42ºC.

- The priority mode of YST2251/YST2251S can't accept ON/OFF during the operation.
  It doesn't matter whether the operation is working or not.
  Please operate it after closing the tap.

USE IN THE LIME-RICH WATER (HARD WATER) AREA

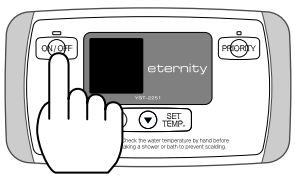
⚠ Caution

In case the unit is used in the lime-rich water (hard water) area, make sure to flush the residual hot water away.
Otherwise lime may harden and deposit in the pipes causing low efficiency and damage to the unit.

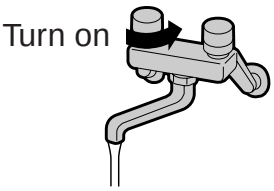
How to operate.

Perform the following steps after the hot water is used.
If control switch is not easily accessible :
Partially open the hot water faucet so that there is less than 1-2L/min flow until the cold water starts to run.

1. Turn the ON-OFF button off.

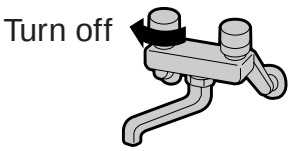


2. Turn on the hot water faucet.



Let the residual hot water completely run out.

3.



Turn off the hot water faucet when the cold water starts to run.

- Contact a qualified eternity service technician to remove lime once a year.
  Failure to perform the annual maintenance will cause malfunction or damage to the heat exchanger.
  Damage caused by the lime build up is not covered by the unit's warranty.
  If a “LC” code shows in the remote controller, call a technician to flush the system.

CAUTION

The residual water in the unit.

Do not drink or cook with any of the water left in the unit or in the pipe for a long time because the quality may have deteriorated.

Power failure in winter.

Prevent freezing by following steps " **(2) By running water from any faucet.** " or " **(3) By removing water in unit as freezing may cause damage to the unit.** ".
(refer to pages 16,17)

Resetting after power failure.

Note :
When not using the remote controller : Ensure that the hot water faucets are turned off.
The unit will automatically reset after power is restored.
When using remote controller(s) : If the remote controller was turned ON, when power is restored, the remote controller will be ON, and the unit will automatically reset and deliver hot water on demand.
If the remote controller has been shut OFF, it will remain OFF. After power is restored, and the remote controller is turned back ON, the unit will be ready to use at the next demand for hot water.
If an error code appears before the power outage, the unit will remain OFF until the problem is resolved.

In case damage is caused by natural disasters such as earthquakes or hurricanes.

If gas or water leakage is suspected even though there is no apparent damage, shut off the Main Gas valve, close the water valve, disconnect power supply, and check the extent of the damage. Contact your local dealer for further assistance.

PREVENTION OF FREEZING DAMAGE DURING WINTER SEASON

Prevention of freezing.

The unit or pipe is likely to be damaged by freezing, not only in the cold latitudes, but also in the mild-temperature zones in winter season. Pay careful attention to prevent freezing pipes.

(1) Anti-frost heater. (automatic.)

The power supply.

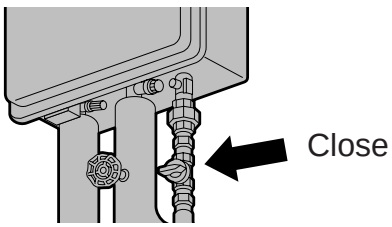
⚠ Caution

Make sure electrical power is supplied to the heater.

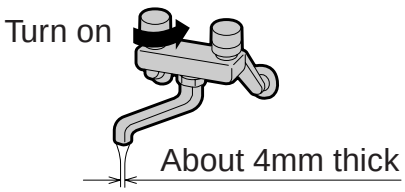
The following step **2.** or **3.** should be tried to avoid freezing.

(2) By running water from any faucet.

1. Close the main gas valve.



2. Turn on the hot water faucet.



Keep water running at about 400cc/min.

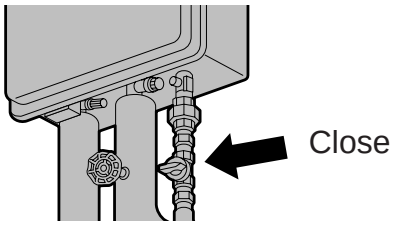
3. Turn off the main power.

Notice :
This helps prevent freezing of the pipes and the valves as well.
Check the flow volume 30 minutes after this procedure as the flow may fluctuate.

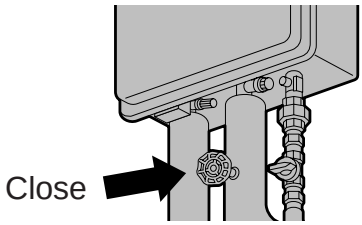
PREVENTION OF FREEZING DAMAGE DURING WINTER SEASON

(3) By removing water in unit as freezing may cause damage to the unit.

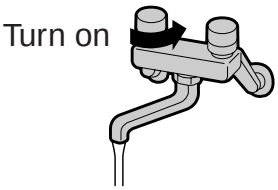
1. Close the main gas valve.



2. Close the main water supply valve.

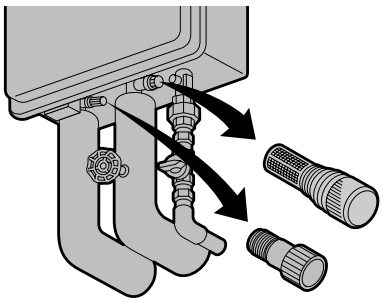


3. Turn on the hot water faucet.



Turn on a shower faucet if any.

4. Remove the drain plug and the water filter. (drain stopper.)



5. Turn off the main power.

Notice :
This is the best method for protecting the unit.
Although, freeze prevention is not possible for the pipe and the valve.
When operation is resumed, put the water filter (drain stopper) back on and check if water runs from the hot water faucet by turning on the main water supply valve.

FOR YOUR SAFETY READ BEFORE OPERATING

WARNING : If you do not follow this instruction exactly, a fire or explosion may result causing property damage, personal injury or loss by fire.

A. This appliance does not have a pilot. It is equipped with an ignition device that automatically lights the burner. Do not try to light the burner by hand.

B. BEFORE OPERATING : Smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electric switch, do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

C. Use only your hand to turn the gas control knob. Never use tools. If the knob will not turn by hand, do not try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or an explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any parts of the control system and any gas control that has been under water.

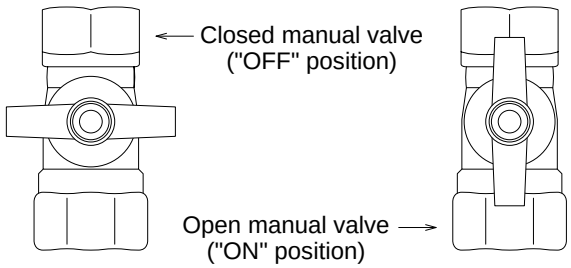
OPERATING INSTRUCTIONS

1. Stop! Read the safety information mentioned previously before proceeding.

2. Turn off all electric power to the appliance.

3. This appliance does not have a pilot light. It is equipped with a direct ignition device that automatically lights the burner. Do not try to light the burner by hand.

4. Turn the manual valve (installed on the gas supply line) clockwise ↷ to the full OFF position.



5. Wait (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this manual. If you do not smell gas, go to next step.

6. Turn the manual valve (installed on the gas line) counterclockwise ↶ to the full ON position.

7. Turn on all electric power to the appliance.

8. If the appliance will not operate, follow the instructions "TO TURN OFF GAS TO APPLIANCE" and call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE.

1. Turn off all electric power to the appliance if service is to be performed.

2. Turn the manual valve (installed on the gas supply line) clockwise ↷ to the full OFF position.

DAILY INSPECTION AND MAINTENANCE

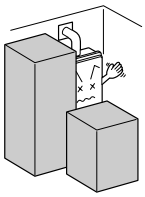
Tips for the inspection.

⚠ Caution

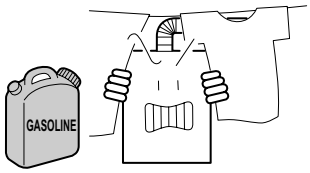
Carry out the inspection and maintenance after the unit is shut down and cools off.
Turn the gas valve off and disconnect the power supply.
Pay full attention to any sharp edges on metal parts when doing inspection and maintenance, as they may cause some injuries.
Never disassemble or modify the components.
Contact the service person when the unit does not work properly.

Inspection. (daily.)

Exhaust outlet, air intake and the surrounding area.

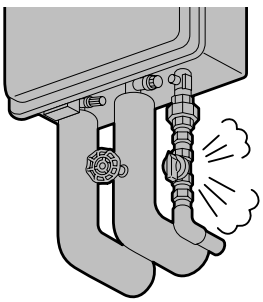


Make sure nothing obstructs the exhaust outlet and air intake.
Make sure all clearances are maintained.



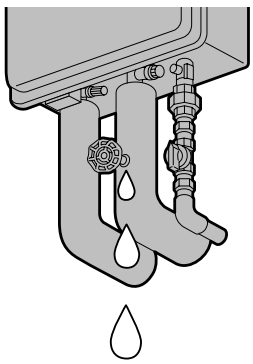
Make sure to keep the area surrounding the unit and the exhaust outlet clear of any combustibles and hazardous materials.

Gas leakage.



Check if gas is leaking from the unit and the Gas pipe.

Water leakage.

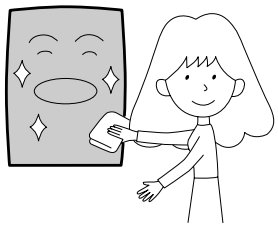


Check if water is leaking from the unit or the inlet or outlet pipes.

DAILY INSPECTION AND MAINTENANCE

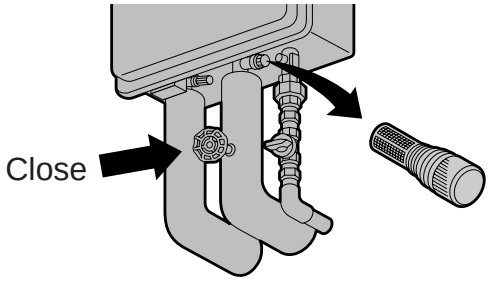
Maintenance. (as required.)

Dust.



Wipe away dust and stains on the outside surface of the unit with a damp cloth or a sponge.

Cleaning the water filter. (drain stopper.)



Close the main water supply, open a hot water faucet to relieve any water pressure, take the water filter (drain stopper) out, and clean the filter element inside.

How to replace a component.

Contact the dealer when you need a component replaced.
Make sure to use only factory authorized part(s) for replacement.

CAUTION : Do not use the unit if it is not operating correctly.
This may result in explosion, gas leakage, or faulty combustion.
Contact the dealer or qualified service person when a repair is required.

Scheduled inspection.

An inspection is necessary for the unit after it has operated for a long period.
The annual inspection at least once a year is recommended.

IN CASE THE UNIT REMAINS UNUSED FOR A LONG TIME

Remove the water in the unit in accordance with **Prevention of freezing** " **(3) By removing water in unit as freezing may cause damage to the unit** "(refer to page 17) in case the unit is not used for a long time.

FAULT MONITOR

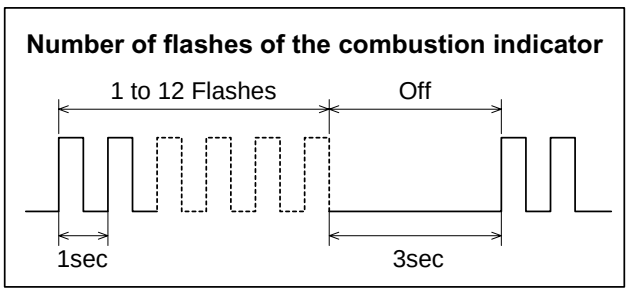
Fault monitor.

The eternity water heater has a self diagnosing function for faults.
When the unit does not operate correctly an error code is displayed on the Main and Bath remote controllers digital monitor.
The cause of the fault can be determined after checking the fault numbers indicated on the remote controller digital monitor.

Error Code	Number of Flashes	Problem	Remedy
000	-	Power recovery detection.	Check power failure. (Alarm record can be indicated in calling mode.)
001	6	During power failure, remote controller wiring is disconnected. (Only applies when using remote controller before power failure.)	Turn off the hot water faucets and turn on again. (Alarm record can be indicated in calling mode.)
111	1	Gas burner fails to ignite.	Check gas supply.
121	3	Loss of combustion.	Check gas supply and pressure.
141	4	Over heat switch activated.	Call service center.
321	5	Outgoing thermistor wire breakage.	Call service center.
331	10	Heat exchanger thermistor wire breakage.	Call service center.
341	11	Air thermistor wire breakage.	Call service center.
611	7	Fan motor failure.	Call service center.
651	9	Water flow control device failure.	Call service center.
721	2	False flame detection.	Call service center.
740 750	-	After power on, nothing operates, but the error code displays in 1 minute.	Call service center.
740 750 760	8	Communication failure between remote controllers and PCB.	Turn off power and turn on again.
990	12	Air supply or exhaust blockage failure.	Check that nothing is blocking the air intake or exhaust.
LC	-	Scale build-up (in heat exchanger) failure.	Call service center.

Flashing design of combustion indicator of PCB

A light on the PCB will flash 1 to 12 consecutive times depending on the failure type.
A three second delay occurs between each set of flashes.
Call an authorized service technician for trouble shooting and repair.



FAULT MONITOR

Alarm record monitor mode

Alarm record can be monitored by special operation of remote controller

1. Start up of alarm record calling mode.
   While ON/OFF button is OFF, alarm record calling mode is obtained by simultaneously pushing both UP/DOWN buttons (▲ and ▼) at Main or Bath remote controller for 5 consecutive seconds.

• The ON indicator will flash while alarm record calling mode is ON.

2. Alarm record list indication method.
   Alarm record can be monitored by pushing UP/DOWN button. (▲ or ▼)
   Alarm occurrence order will match the following indication.
   1 ---- Previous alarm (If present alarm is not reset, it shows present alarm.)
   2 ---- Alarm 2 occurrences ago. 3 ---- Alarm 3 occurrences ago.
   4 ---- Alarm 4 occurrences ago. 5 ---- Alarm 5 occurrences ago.
   6 ---- Alarm 6 occurrences ago. 7 ---- Alarm 7 occurrences ago.
   8 ---- Alarm 8 occurrences ago.

• If no alarm has been input, indicated by hyphen. (---)

3. Clearing alarm record.
   During alarm record monitor mode, you can clear alarm record index, alarm record 1-8 and combustion period during alarm by pushing ON/OFF button for 10 consecutive seconds.

• Clearing of compiled number of alarms shall not be done.
• In case the unit is relocated, be sure to use the above clearing procedure.

4. Completion of alarm record monitor mode.

• Alarm record monitor mode will be completed by simultaneously pushing both UP/DOWN buttons (▲ and ▼) for 5 consecutive seconds.
• Alarm record monitor mode will be disengaged if no further operation is made for 5 consecutive minutes while alarm record monitor mode is ON.
• Alarm record monitor mode will be disengaged if operation is resumed by other connected remote controller.

TROUBLE SHOOTING AND SOLUTION

The following problems are not a malfunction or defect.
Check again before asking for servicing.

Problem	Explanation
Hard to ignite at the initial attempts.	Air in the gas pipe. Shut the hot water supply faucet and open. Repeat the process.
Hot water does not flow despite the faucet being open.	Needs minimum water flow to ignite. Turn the faucet further for more volume.
Hot water supply is discontinued during the blackout and no recovery after the power is back on.	The unit will automatically reset as described on page 15.
Hot water with the desired temperature is not available instantly a faucet is turned open.	It takes a little time to reach the set temperature because of the residual water in the pipe and of the distance between the unit and the faucet.
White steam comes out from the exhaust outlet.	The exhaust gas contains a lot of vapor which turns white in contact with cold air.
Hot water looks white.	Air dissolved in the water and appears white.
The blower keeps running for a while after the hot water faucet is turned shut.	It continues to run for about 65 seconds to discharge the exhaust gas in the combustion chamber.
Water temperature and flow volume sometimes become unsteady.	Water temperature and flow volume may fluctuate in case hot water is used at other faucets at the same time or water pressure changes occur or gas regulator fluctuations.
The surface of the remote controller feels warm.	The remote controller itself feels warm because of the display screen light, etc. Electronic circuit is activated even when the switch of the remote controller is off. Heat is generated.
Hot water flow volume fluctuates, even in case of same set temperature.	Hot water flow volume may fluctuate by the difference in water supply temperature or water pressure fluctuations.
Temperature of the water at the faucet may also vary from the displayed temperature at the remote controller.	Hot water temperature may vary from set temperature by the climate, plumbing length or water flow.

INSTALLATION INSTRUCTIONS

• The cases shown below are classified by the degree of risk and damage.
Be sure to follow the instruction for your safety.

⚠ **Danger**	"Danger" indicates that serious injuries or even death may result from the improper installation due to negligence of following the instructions.
⚠ **Warning**	"Warning" indicates the possibility that serious injuries or even death may result from the improper installation due to negligence of following the instructions.
⚠ **Caution**	"Caution" indicates the possibility that some injuries or material damage may result from the improper installation due to negligence of following the instructions.

Each mark indicates:

	Prohibited
	Never fail to do.
	Ground

⚠ **Danger**
Never install the unit outdoors as it is exclusively for indoor use. Do not install it in the bathroom. Electric shock or leakage may result.

INSTALLATION REQUIREMENTS

The eternity I26 must be installed in accordance

1. These instructions.
2. Uniform Building Regulations Local authority regulations;
3. AS/NZS 3500.4 National Plumbing and Drainage Code, Part 4 Hot Water Supply Systems,
4. The installation code AS5601 for gas burning appliances and equipment.
5. Any other statutory regulation that may apply.
6. A notice of intention to install shall be lodged with the relevant Municipal Authority and local Gas Authority prior to installation.

INSTALLAION MUST BE CARRIED OUT ONLY BY AN AUTHORISED AND APPROPRIATE LICENSED PERSON

INSTALLATION INSTRUCTIONS

Before installation.

Verification of the unit.

⚠ Warning

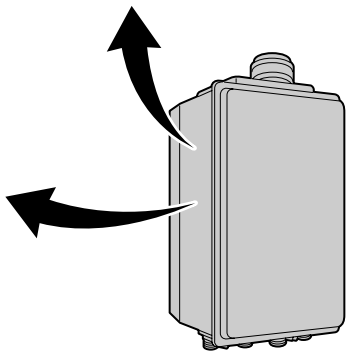
- Make sure the unit to be installed suits the intended use and application.
- Do not use any gas other than specified on the sticker.
- Do not operate with any power source (voltage/frequency) other than specified on the sticker.

LPG

20437470

Natural Gas

20437480



WaterMark
AS3498 Lic W506

Gas Safety Certified
AS 4552
SAI Global
DO NOT REMOVE

ETERNITY I 26 EXTERNAL GAS WATER HEATER		
SAIG APPROVAL No.		GSCS20021
		NAT.G
INPUT	MJ/h	200
OUTPUT	kW/h	45.6
TEST POINT PRESSURE HIGH	kPa	0.60
TEST POINT PRESSURE LOW	kPa	0.10
GAS INJECTORS	mm	1.34/1.65
WEIGHT	kg	20.0
MAX. WATER PRESSURE	kPa	1200
MIN. WATER PRESSURE	kPa	210
WATER HEATING CAPACITY 26L/min RAISED 25 ℃		
VOLTAGE 240Volts-50Hz 0.47AMPS		

SERIAL No. 20559480

WaterMark
AS3498 Lic W506

Gas Safety Certified
AS 4552
SAI Global
DO NOT REMOVE

ETERNITY I 26 EXTERNAL GAS WATER HEATER		
SAIG APPROVAL No.		GSCS20021
		LPG
INPUT	MJ/h	194
OUTPUT	kW/h	44.4
TEST POINT PRESSURE HIGH	kPa	0.55
TEST POINT PRESSURE LOW	kPa	0.10
GAS INJECTORS	mm	1.0/1.2
WEIGHT	kg	20.0
MAX. WATER PRESSURE	kPa	1200
MIN. WATER PRESSURE	kPa	210
WATER HEATING CAPACITY 26L/min RAISED 25 ℃		
VOLTAGE 240Volts-50Hz 0.47AMPS		

SERIAL No. 20559550

Location of the unit.
Decide where to install the unit by considering customer's request and venting length limitations.

⚠ Warning

Ventilation
- Install the unit where there is enough space for ventilation.
- Use the designated vent terminal (option).
- Make sure the pipe termination is kept clear of snow.
- Check for the holes, cracks, blockage, or gap in connections of the piping. Reuse the components only after making sure there is no problem.
- Do not install the unit where flammables such as gasoline, benzene, and adhesive are handled.

INSTALLATION INSTRUCTIONS

Installation.

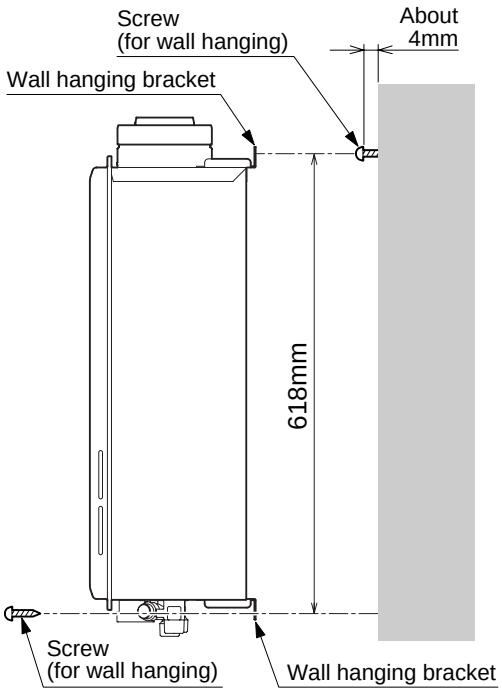
⚠ Caution

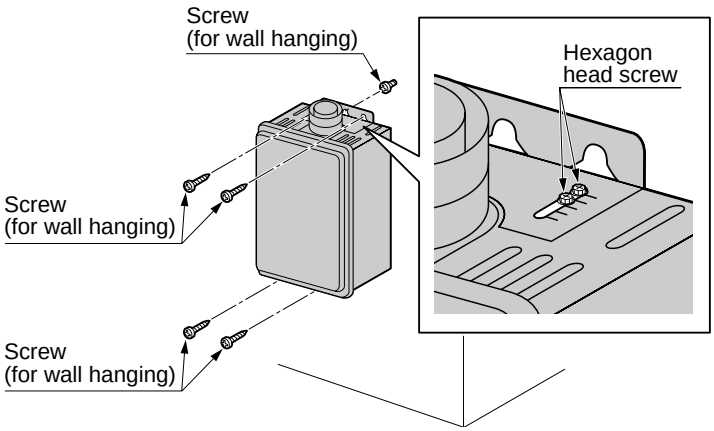
- Reinforce the wall if necessary as this unit weighs about 20kg.
- Make sure that there is adequate floor drainage to prevent flooding the floor.

1. Twist 1 screw (for wall hanging) into the wall leaving about 4mm length to hook on.

2. Hook the center hole of the wall hanging bracket onto the screw and securely fix the unit with 4 screws.

3. Adjust the clearance between the unit and the wall by loosening 8 hexagon head screws (upper and lower) and then securely fix the unit, so it is level.





INSTALLATION INSTRUCTIONS

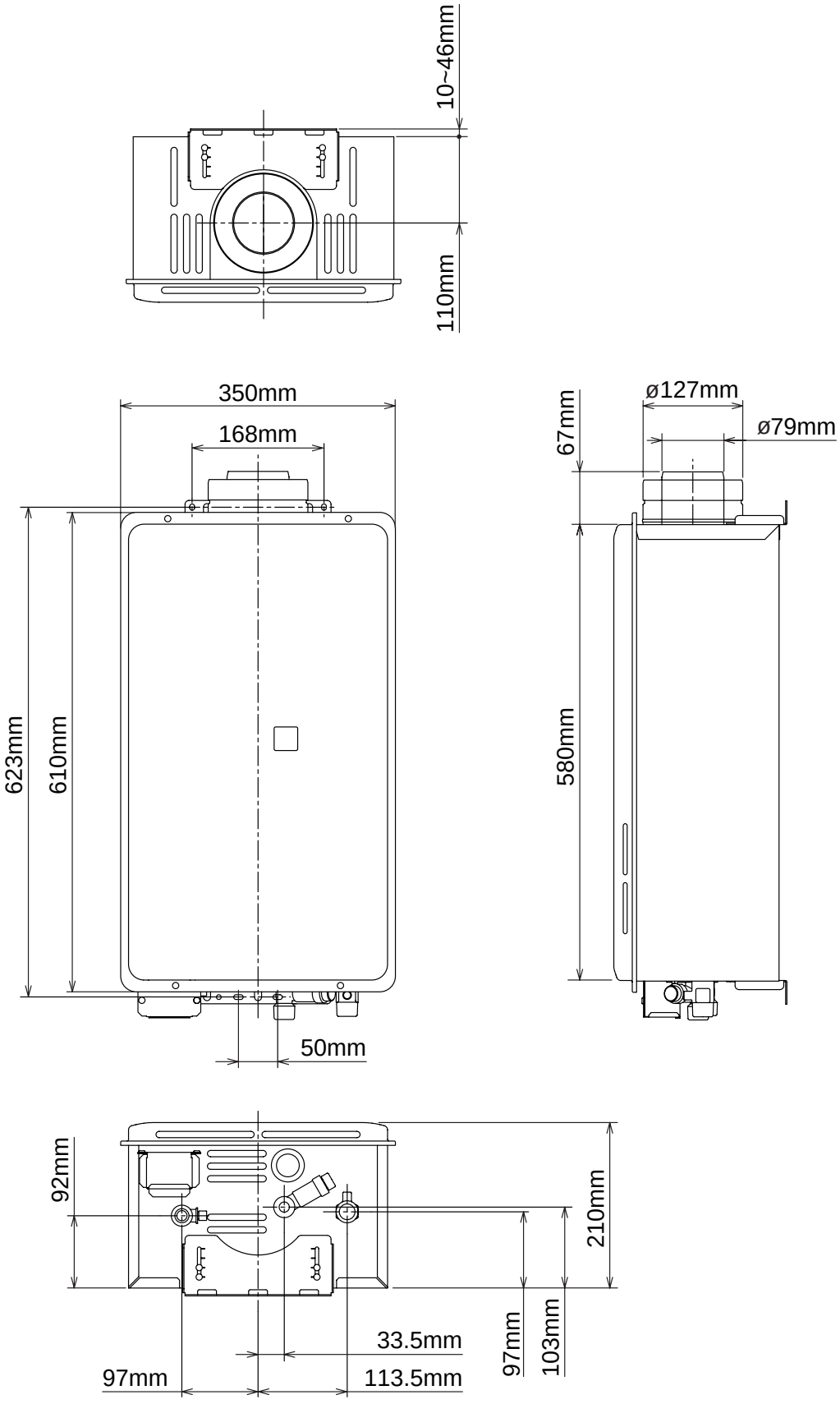
⚠ Caution

- Check if adjacent wall or ceiling is fire resistant and allows safe distance for fire prevention.
- This water heater is suitable for residential water (potable) heating only. Do not use this water heater for space heating, combination space heating/domestic water heating, or commercial water heating applications.
- eternity I26 is not suitable for use in pool or spa applications.
- Maintain proper space around the unit for proper servicing and operation. Minimum clearances from combustible materials are listed below.

Top of heater	30cm
Back of heater	0cm
Front of heater	15cm
Sides of heater	5cm
Floor	30cm
Vent pipe	0cm

- Secure enough space so that the inspection and repairs can be done easily.
- Secure space not only in front but also under the unit.
- Install the vent terminal in a place where sufficient ventilation can be secured.
- This unit is designed to be installed indoors using the proper vent piping to exhaust by-products of combustion to the outside environment.
  Contact your dealer or eternity for proper vent kits.
- Do not install the unit over other combustion appliances.
  Oil residue and dust in the air can adhere to the burner and the heat exchanger resulting in deformation, loss of efficiency, or damage to electronic components.
- Do not install the vent terminal near the outlets of the other appliances.
  Install the air intake terminal away from the wind path as the wind may cause imperfect combustion.
- Keep the vent terminal away from the wall or the overhangs as far as possible even if it is noncombustible in order to prevent discoloration and staining caused by the exhaust gas.
- Do not install the unit where commercial chemicals are used.
  Those chemicals are ammonia, sulfur, chloride, ethylene compound and acids which are used at beauty shop, laundry, factory and so forth.
- Do not install the unit over food or dishes.
- Pipe pressure relief to a drain or outside environment, or within 100mm of the floor.
  Pipe pressure relief discharge to a drain or outside environment. (refer to page 50)
- The appliance should be located in an area where leakage from the unit or connections will not result in damage to the area adjacent to the appliance or to lower floors of the structure. When such locations can not be avoided, it is recommended that a suitable drain pan, adequately drained, be installed under the appliance. The pan must not restrict combustion airflow.

DIMENSIONS


10~46mm
110mm
350mm
168mm
623mm
610mm
50mm
ø127mm
ø79mm
67mm
580mm
92mm
210mm
97mm
103mm
33.5mm
97mm
113.5mm

TEMPLATE OF L TERMINATION INSTALLATION

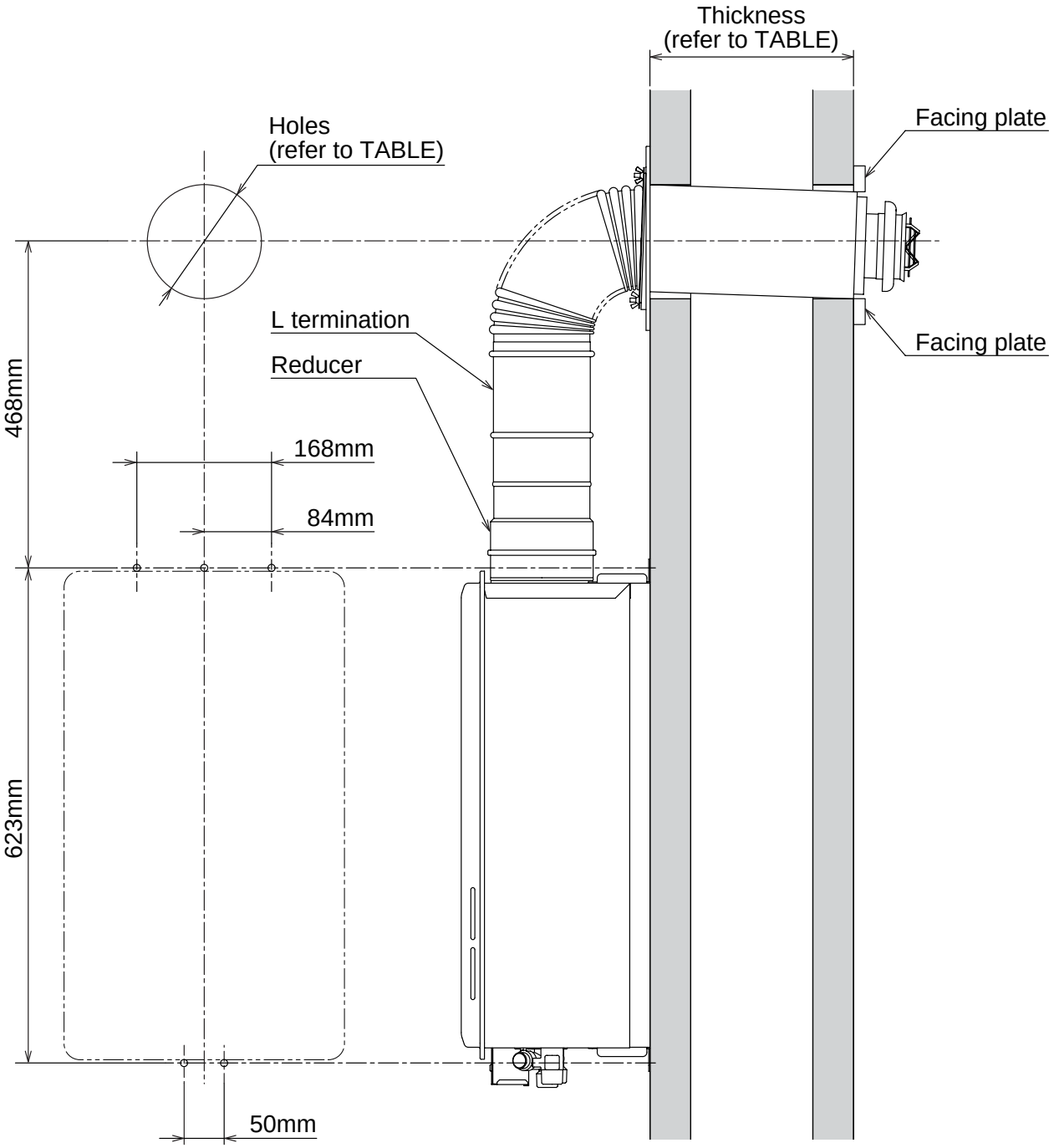


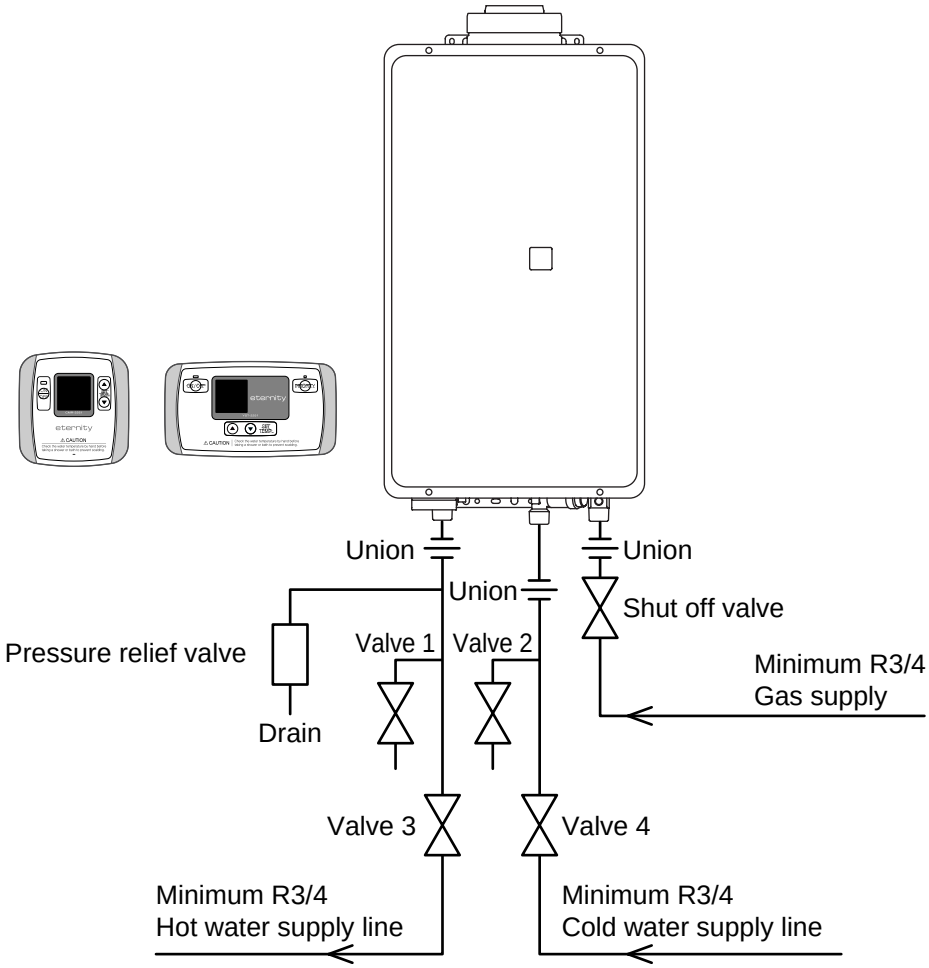
TABLE : Relationship between the range of wall thickness and the diameter of opening on the wall.

Model Number	P/N	the range of wall thickness	the diameter of opening
FFT-7U-200	3810	100-250mm	ø144-150mm
FFT-7U-300	3811	250-450mm	ø147-150mm
FFT-7U-500	3812	450-650mm	ø154-175mm
FFT-7U(L)-200	3813	100-250mm	ø144-150mm
FFT-7U(L)-300	3814	250-450mm	ø147-150mm
FFT-7U(L)-500	3815	450-650mm	ø154-175mm

*The diameter of the wall opening does not need to be increased if the wall opening is pitched DOWNWARD towards the outside at a 2º pitch.

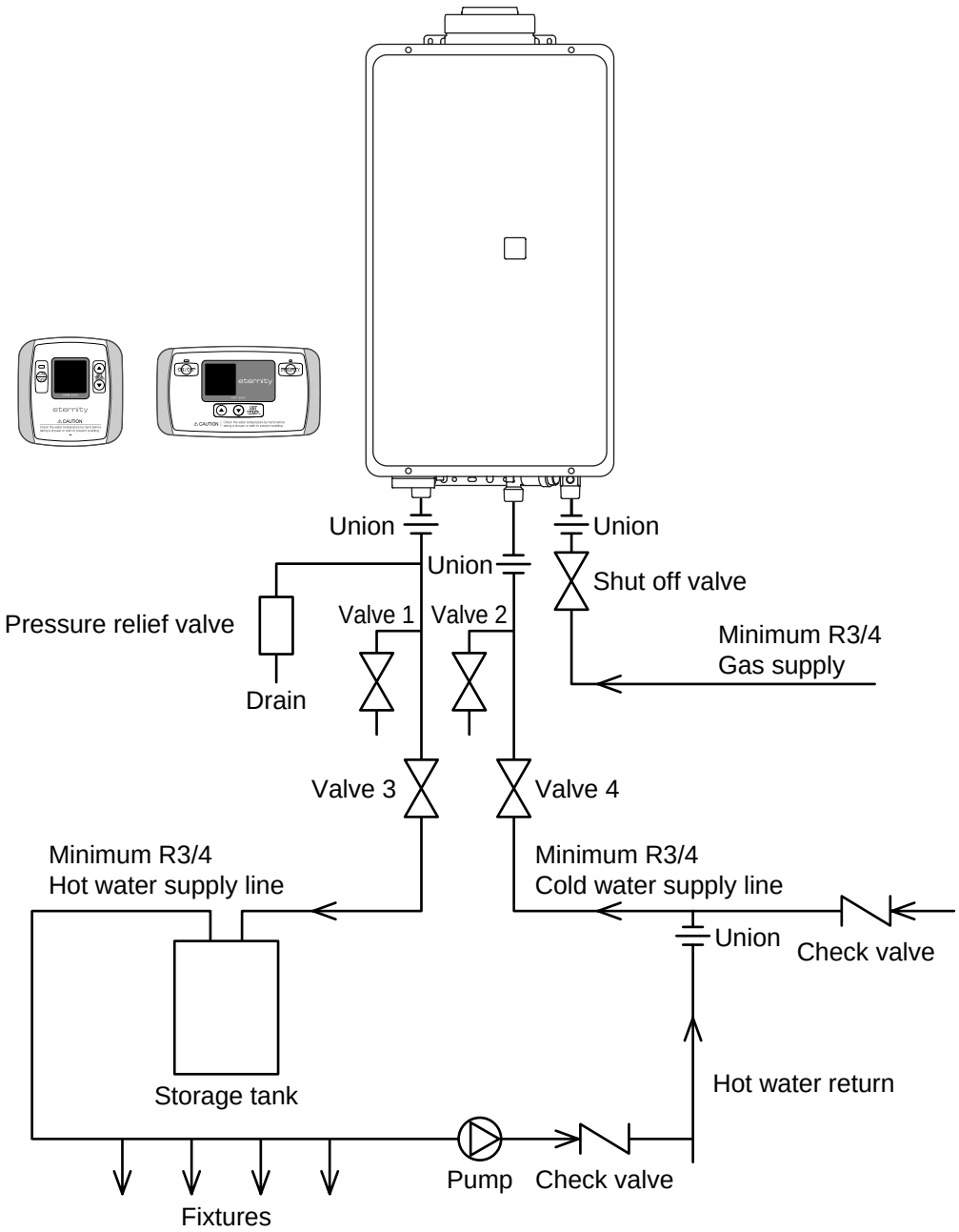
SUGGESTED PIPING-BASIC INSTALLATION

This drawing is intended only as a guide.
It does not imply compliance with local building codes.
Installation must be done in accordance with local building codes and may vary depending on installation location.
Confer with local building officials before installation.



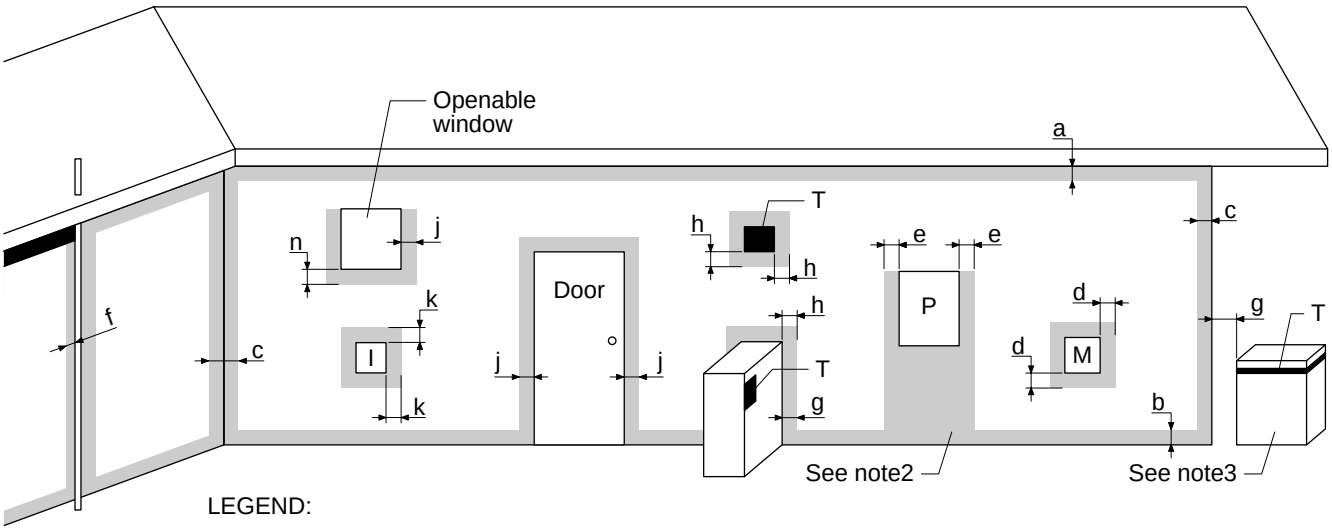
SUGGESTED PIPING-CIRCULATION SYSTEMS

This drawing is intended only as a guide.
It does not imply compliance with local building codes.
Installation must be done in accordance with local building codes and may vary depending on installation location.
Confer with local building officials before installation.



VENT PIPE INSTALLATION

AS 5601 CLEARANCE REQUIREMENTS.



LEGEND:

T = Flue terminal
M = Gas meter
Shading indicates prohibited areas for flue terminals
I = Mechanical air inlet
P = Electricity meter or fuse box

Ref.	Item	Minimum clearances (mm)	
		Natural draft	Fan assisted
a	Below eaves, balconies and other projections:		
	• Appliances up to 50MJ/h input	300	200
	• Appliances over 50MJ/h input	500	300
b	From the ground, above a balcony or other surface †	300	300
c	From a return wall or external corner †	500	300
d	From a gas meter(M) (see 4.7.11 for vent terminal location of regulator)	1000	1000
e	From an electricity meter or fuse box (P)	500	500
f	From a drain pipe or soil pipe	150	75
g	Horizontally from any building structure † or obstruction facing a terminal	500	500
h	From any other flue terminal, cowl, or combustion air intake †	500	300
j	Horizontally from an openable window, door, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilation:		
	• Appliances up to 150MJ/h input	500	300
	• Appliances over 150MJ/h input up to 200MJ/h input	1500	300
	• Appliances over 200MJ/h input up to 250MJ/h input †	1500	500
	• Appliances over 250MJ/h input †	1500	1500
	• All fan-assisted flue appliances, in the direction of discharge	-	1500
k	From a mechanical air inlet, including a spa blower	1500	1000
n	Vertically below an openable window, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilatin:		
	• Space heaters up to 50MJ/h input	150	150
	• Other appliances up to 50MJ/h input	500	500
	• Appliances over 50MJ/h input and up to 150MJ/h input	1000	1000
	• Appliances over 150MJ/h input	1500	1500

† Unless appliance is certified for closer installation

NOTES:

1 All distances are measured to the nearest part of the terminal.
2 Prohibited area below electricity meter or fuse box extends to ground level.
3 See Clause 5.13.6.6 for restrictions on a flue terminal under a covered area.
4 See Appendix J, Figures J2(a) and J3(a), for clearances required from a flue terminal to an LP Gas cylinder, A flue terminal is considered to be a source of ignition.
5 For appliances not addressed above acceptance should be obtained from the technical regulator

FIGURE 5.3(in part) MINI MUM CLEARANCES REQUIRED FOR BALANCED FLUE TERMINALS, FAN-ASSISTED FLUE TER MINALS, ROOM-SEALED
APPLIANCE TERMINALS OR THE TERMINALS OF OUTDOOR APPLIANCES

VENT PIPE INSTALLATION

- Use only designated vent terminal (sold separately).
- Install correctly in accordance with the installation manual attached.
- Select the correct switch position depending on the length of the vent pipe.
- Make sure that the proper distance, within the limitations, is determined between the unit and the termination of the vent pipe.
- Make sure the terminal of the vent pipe terminates outdoors.
- Prevent the exhaust gas from flowing back indoors through the gap between the termination and the wall where the vent pipe penetrates.
- Make sure snow drift will not block the vent terminal when it has been piled or fallen.
- Do not place hazardous materials near the end of the vent termination.
- Make sure to install the vent terminal at downward slope to prevent rain from entering inside.
- Some vapor or condensation may be generated from the vent terminal.
- Place the vent terminal where it is not affected by water splashing or falling off the roof eaves.
- A vent system that exits the structure through a sidewall shall terminate not less than 30cm above the ground.
  Check local codes and ordinances which may require higher clearances.
- The termination of the vent system shall not be located in public traffic areas, such as walkways, unless the vent system is at least 2m above the ground.
- Terminate the system 2m from the combustion air intake of any appliance.
- Place the system at least 1m away from any other building opening, gas utility meter, service regulator or the like, or less distance if specified in the appliance's instructions.

Ensure that positioning of the vent system complies with the requirements of AS 5601

VENT PIPE INSTALLATION

- In case extension of the vent pipe is required, it shall be limited to the maximum of 12.5m based on the formula below.
  However, the maximum height of the vent pipe is limited to 1.5m.
- Calculate D (distance) value according to the length of the vent pipe and the number of elbows.

$$D = L + (M_{90} \times 2) + (M_{45} \times 0.5)$$

D : Distance
L : Total extended length of straight vent pipe and adjustable vent pipe.
M_{90}: Number of 90º elbow
M_{45}: Number of 45º elbow

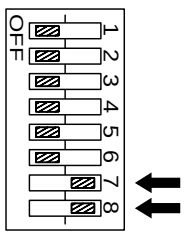
Note : Maximum number of M_{90} is 3pcs. Maximum number of M_{45} is 5pcs.
In case of combination use for M_{90} and M_{45}, maximum total number is 5pcs.

To prevent the vent/air intake piping from occurring condensation, the fan has following 4 type settings with 2 dip swiches, No.7 & No.8 in each D value.
Both dip switch No.7 & No.8 ON is factory setting ; this is suitable for over 9 in D value.

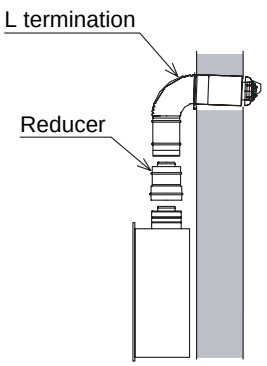
- Depending upon the vent length, dip switch No.7 & No.8 on PCB may need to be adjusted to compensate fan speed. Read the following instructions to determine which position this switch should be placed in.
- In case D value is 9 and above, leave dip switch No.7 & No.8 (ON).
- In case D value is 6 and above, but less than 9, set dip switch No.7 OFF and leave dip switch No.8 (ON).
- In case D value is 4 and above, but less than 6, leave dip switch No.7 (ON) and set dip switch No.8 OFF.
- In case D value is less than 4, set both dip switch No.7 & No.8 OFF.
  (Factory setting No.7 & No.8 ON.)

< Dip switch on PCB >

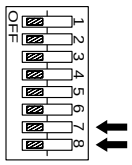
* No.1 dip switch is ON with Natural Gas and OFF with Propane Gas.



• Example #1 :



< Dip switch on PCB >



In case of L termination and reducer.
(Refer to Fig. 4-1 page 42)
D = 0 + (0x2) + (0x0.5) = 0

VENT PIPE INSTALLATION

Note :

- In case D value is longer than 12.5, the unit shall be relocated with vent length of less than 12.5m.
- In case vent pipe requires extension, use coaxial vent pipe and elbows and start from the vent terminal side.
- Install the vent pipe at slight decline toward the vent terminal. (refer to page 42)
- Install the vent pipe securely by using sling fittings to support the connected parts.
- Use fittings at 1.5m intervals. Do not use wire.
- When installing extended vent pipe :
  Take special precaution to stay clear of combustible surfaces.
- In case of horizontal direct vent installation, be sure to use recommended vent terminal.
- In case of horizontal direct vent installation with recommended vent terminal, connect reducer between water heater and vent terminal.
- In case of other horizontal direct vent installation, connect reducer between pipe and vent terminal.

Warning :

- Failure to follow the installation instructions could cause FIRE, CARBON MONOXIDE POISONING, or DEATH.
- Never change the position of any dip switch other than No.7 & No.8.
- Unauthorized alteration and use of the unit in a wrong setting may cause material damage, injury accident, scalding, or even death.
- Exceeding the maximum vent length is dangerous and may result in bad combustion.
- Be sure to connect the vent pipes in such a way so that no exhaust gas leaks when they are installed in a concealed area, such as the attic.

Caution :

- The edges of sheet metal parts may be sharp.
  Always wear gloves and appropriate eye, foot, and other protections when handling these products.
- It is recommended that experienced professionals familiar with the operation and maintenance of heating appliances and vent / air intake system install this system.
  These instructions are a guide to assist a professional installer.
- Before commencing installation, please read the installation instructions carefully.
- Failure to follow the installation instructions could cause not only the lower performance of appliance but also property damage or personal injury.
- Different manufactures have different joint systems and adhesives.
  Do not mix pipe, fitting, or joining methods from different manufacturers.
- Examine all components for shipping damage prior to installation.

VENT PIPE INSTALLATION

General installation requirements.

(1) Selecting installation site.

- A vent system that exits the structure through a sidewall or the like shall terminate not less than 30.5cm above the ground.
- The termination of the vent system shall be located above the snow line in geographical areas where snow accumulates.
- The termination of the vent system shall not be located in public traffic areas, such as walkways, unless the vent system is at least 2.13m above the ground.

Ensure that positioning of the vent system complies with the requirements of AS5601
Check local codes and ordinances which may require higher clearances.

(2) Clearance to combustibles and openings
Maintain clearances to openings as follows

- Terminate the system 1.8m from the combustion air intake of any appliance.
- Place the system at least 0.9m away from any other building opening, gas utility meter, service regulator or the like, or less distance if specified in the appliance's instructions.

Items of vent system.

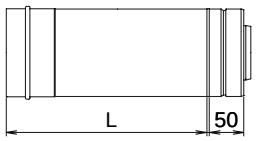
Items shown below in TABLE 1 are used for this vent system. The diameters of pipes are 79mm for inner vent pipe and 127mm for outer air intake pipe. The length of the items are shown in Fig. 1

TABLE 1 : Items

	Connection and detachment				Model Number	P/N
Vent length *	Fig. 2 (page 39)	Straight	Length 300mm		FFTP300	3801
			Length 600mm		FFTP600	3802
			Length 900mm		FFTP900	3803
	Fig. 2	Adjustable	Adjustable Length 175-230mm		FFTA200	3804
			Adjustable Length 215-310mm		FFTA260	3805
	Fig. 2	Elbow	45º elbow		FFTEL45	3806
			90º elbow		FFTEL90	3807
	Fig. 2		Male-male Adapter		FFTMM	3808
Vent termination	Fig. 2	Horizontal	Straight Termination		FFT7U	Refer to TABLE 2 (page 43)
			L Termination		FFT7U(L)	
			Reducer		FFTRD	3816
	Fig. 3 (page 40)	Vertical	Air Intake Pipe		FFTAIP	3817
			Rain Cap		FFTRT	3818
Others		Support	Support Strap (150cm clearance)		FFTSTR	3819
		Roof Members	Roof Flashing	Base	FFTRFB	3820
	Fig. 2,3			Cap	FFTRFC	
				Adapter A	FFTRFAA	3821
				Adapter B	FFTRFAB	3822

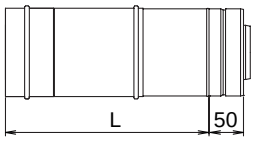
VENT PIPE INSTALLATION

Straight Length



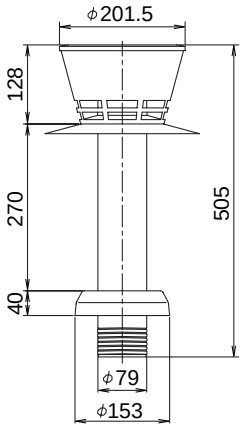
Model Number	P/N	L
FFTP300	3801	300mm
FFTP600	3802	600mm
FFTP900	3803	900mm

Adjustable Length

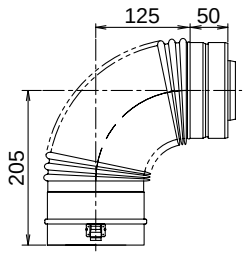


Model Number	P/N	L
FFTA200	3804	175-230mm
FFTA260	3805	215-310mm

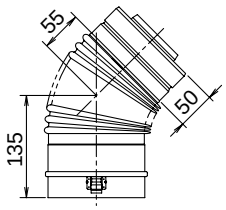
Rain Cap



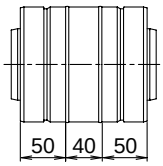
90º elbow



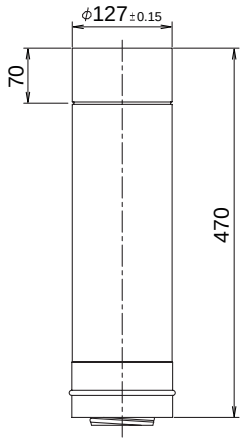
45º elbow



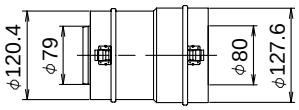
Male-male Adapter



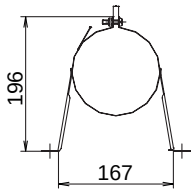
Air Intake Pipe



Reducer

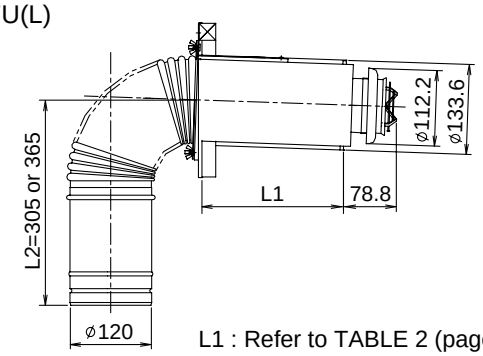


Support Strap



L Termination (Refer to TABLE 2 page 43)

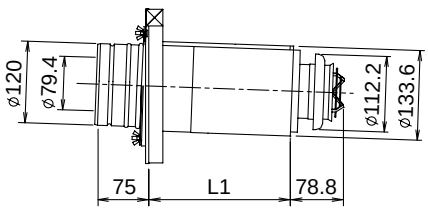
FFT-7U(L)



L1 : Refer to TABLE 2 (page 43)

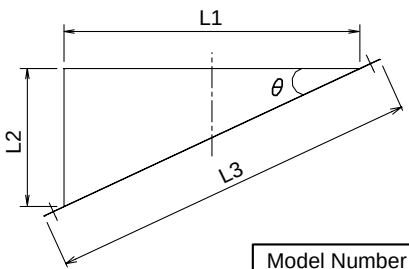
Straight Termination (Refer to TABLE 2 page 43)

FFT-7U



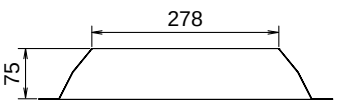
L1 : Refer to TABLE 2 (page 43)

Roof Flashing (adapter)

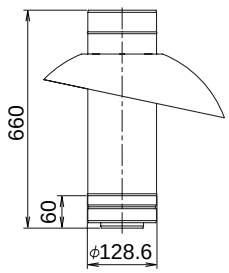


Model Number	P/N	L1	L2	L3	θ
FFTRFAA	3821	440mm	205mm	643mm	20º
FFTRFAB	3822	440mm	369mm	738mm	40º

Roof Flashing (base)



Roof Flashing (cap)



(unit : mm)

< Fig. 1 The dimensions of items >

VENT PIPE INSTALLATION

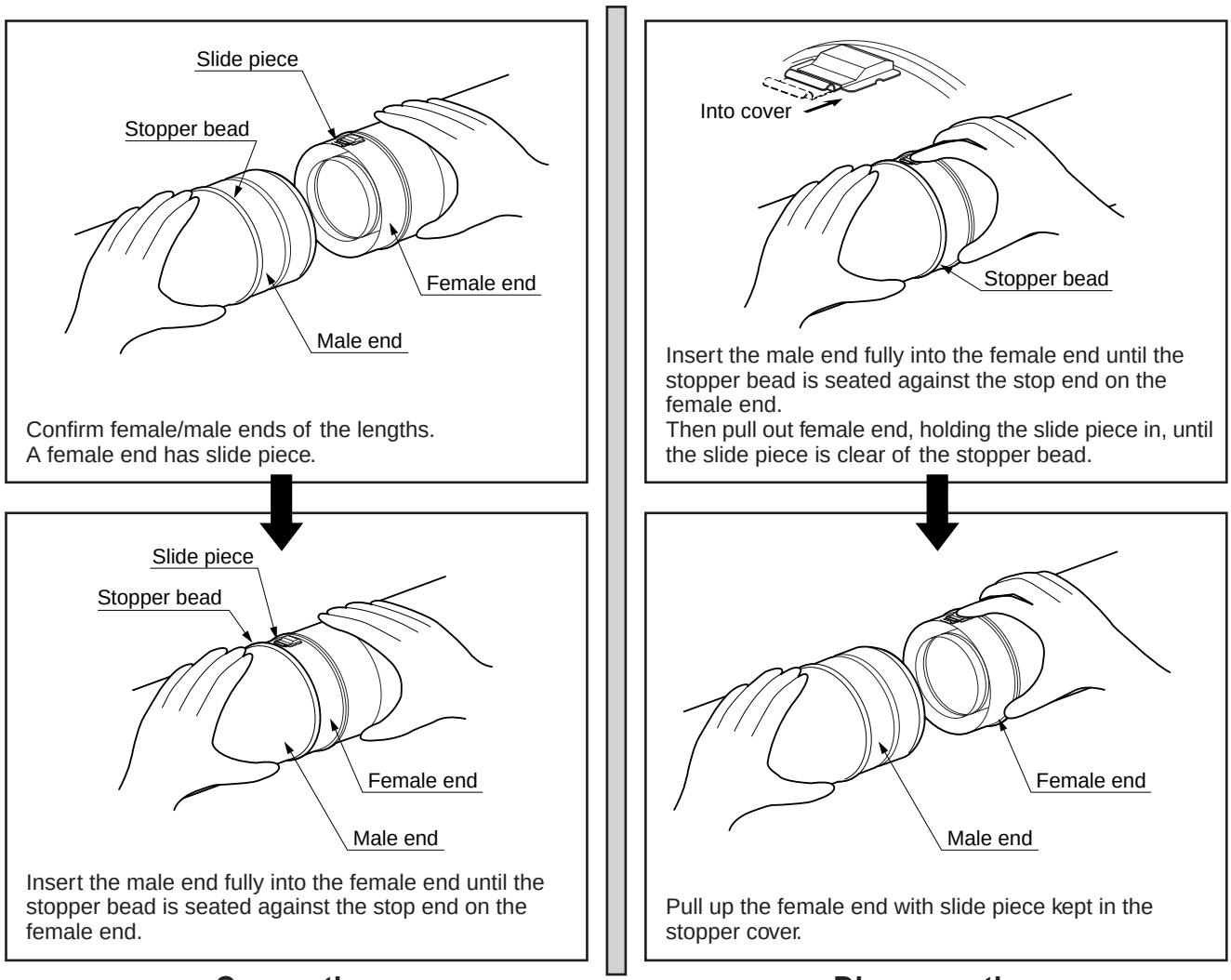
All the air used for combustion shall be supplied from the outside and all the exhaust gas shall be discharged to the outside.

The minimum and maximum wall thickness required for installation:
Minimum 10cm
Maximum 65cm

The procedure of installation.
(1) Common procedure for vertical and horizontal installation.

• Joint connection and detachment method
Items in TABLE 1 shall be connected and detached by one of the following method (a),(b). The column, Connection and detachment, in TABLE 1, page 37. indicates which method should be used. Vent pieces should not be cut.

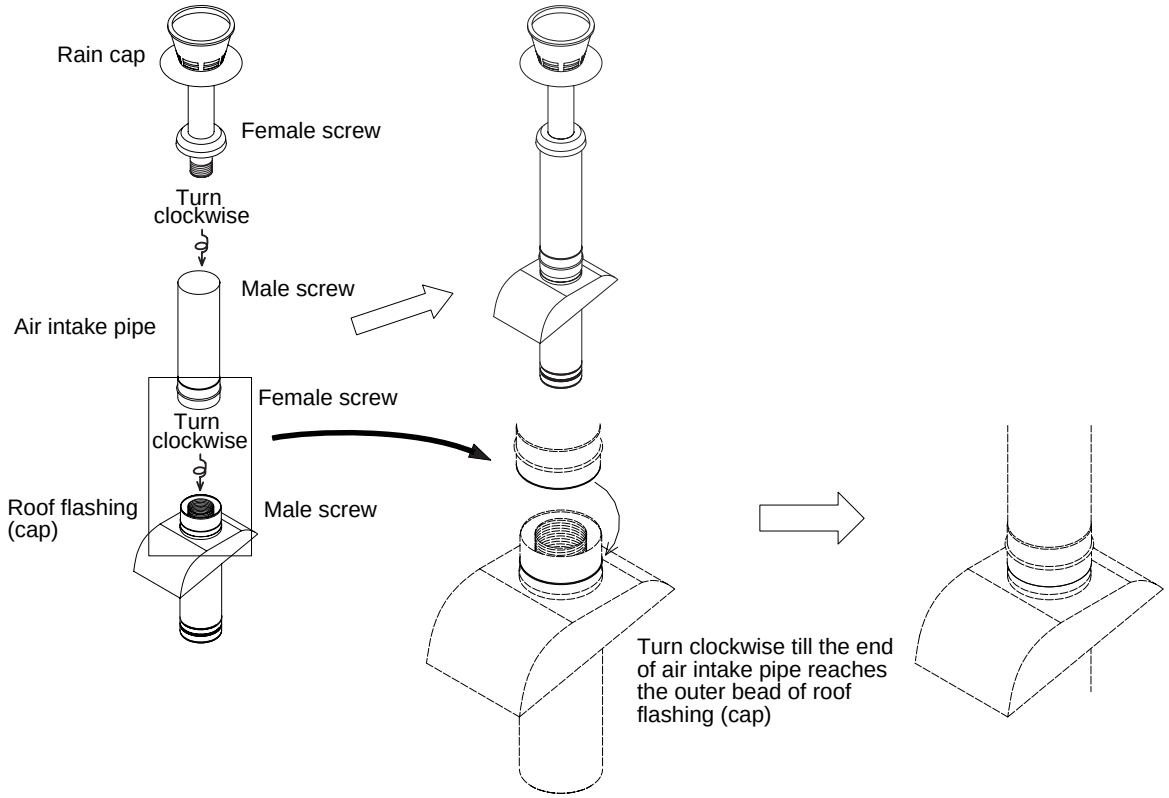
(a) Mainly, method (a) is used for connection and detachment. It's for Horizontal terminations (straight termination and L termination), vent lengths, drain tee, and reducer.


Slide piece
Stopper bead
Female end
Male end
Confirm female/male ends of the lengths.
A female end has slide piece.
Into cover
Stopper bead
Insert the male end fully into the female end until the stopper bead is seated against the stop end on the female end.
Then pull out female end, holding the slide piece in, until the slide piece is clear of the stopper bead.
Slide piece
Stopper bead
Female end
Male end
Insert the male end fully into the female end until the stopper bead is seated against the stop end on the female end.
Female end
Male end
Pull up the female end with slide piece kept in the stopper cover.
Connection
Disconnection

< Fig. 2 Joint connection and detachment method (a), (b) >

VENT PIPE INSTALLATION

(b) Rain cap, air intake pipe, and roof flashing (cap) shall be connected by turning the screw at each end of pipes clockwise as far as they will go, as shown in Fig. 3.
When connecting between air intake pipe and roof flashing (cap), confirm that the end of air intake pipe reaches the outer bead of roof flashing (cap) because the screw section is hidden in outer pipe.
When disconnecting them turn counterclockwise.



< Fig. 3 Joint connection and detachment method (b) >

VENT PIPE INSTALLATION

- Adjustable lengths
  Adjustable lengths are available to allow for installation where fixed-length sections do not produce the desired dimensions. Also adjustable lengths may be used to compensate for linear thermal expansion/contract between two fixed points.
  As shown in Table1, 2 types of adjustable lengths are available according to the limits in which its effective length can be made longer and shorter.

- Elbows
  45º and 90º elbow are available for changing the direction of the vent system.
  The flexible section of each can be bent by hand for making small angle adjustment.
  Do not bend repeatedly or extremely, because it may cause vent gas leaks.

- Support
  Support the vent system every 1.5m.
  1) Secure the support to solid material using the screws provided with the support.
  2) Loosen the nuts of the cylinder.
     After inserting pipes, fasten the loosened nuts.
     Use the pairs of nuts and bolts provided with the support.

VENT PIPE INSTALLATION

(2) Detail of installation.

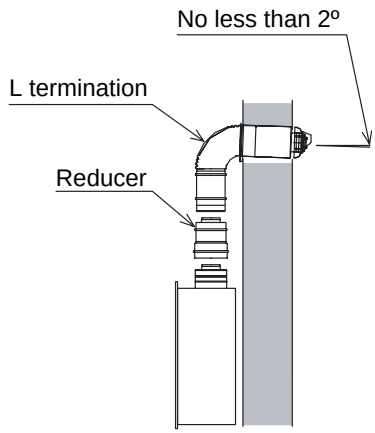


Fig. 4-1
Horizontal installation [FFT-7U(L)]

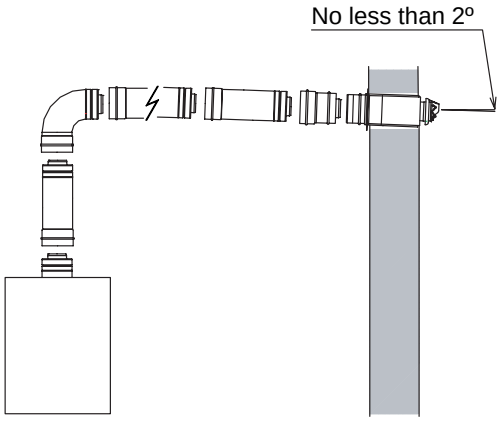


Fig. 4-3
Horizontal extended installation

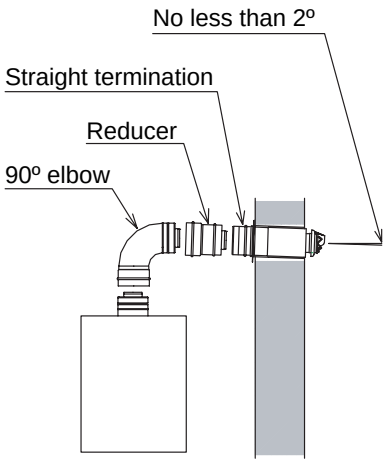
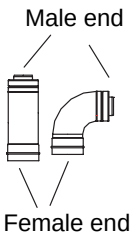


Fig. 4-2
Horizontal installation [FFT-7U]



- Horizontal installation.
  Horizontal installation can consist of only horizontal termination (straight termination or L termination), reducer, and 90º elbow. If the distance between an inner wall and the center of the appliance flue outlet is under 146mm, use L termination [FFT-7U(L)] and reducer as shown in Fig. 4-1. Otherwise, use straight termination [FFT-7U] and reducer as shown in Fig. 4-2.
  A continuously DOWNWARD slope of no less than 2º is maintained in the horizontal portion.
- Horizontal extended installation.
  Horizontal extended installation means installation on an internal wall apart from the appliance. It can consist of straight termination, reducer, straight lengths, adjustable lengths, and elbows as shown in Fig. 4-3.
  A continuously DOWNWARD slope of no less than 2º is maintained in the horizontal portion toward the outside.

VENT PIPE INSTALLATION

TABLE 2 : Relationship between the range of wall thickness and the diameter of opening on the wall.

Model Number	P/N	the range of wall thickness	the diameter of opening
FFT-7U-200	3810	100-250mm	ø144-150mm
FFT-7U-300	3811	250-450mm	ø147-150mm
FFT-7U-500	3812	450-650mm	ø154-175mm
FFT-7U(L)-200	3813	100-250mm	ø144-150mm
FFT-7U(L)-300	3814	250-450mm	ø147-150mm
FFT-7U(L)-500	3815	450-650mm	ø154-175mm

*The diameter of the wall opening does not need to be increased if the wall opening is pitched DOWNWARD towards the outside at a 2º pitch.

Horizontal installation (See Fig. 5).

The horizontal termination (straight termination and L termination) consists of two parts (sleeve and termination itself).
Separate them before installation.

1. Check the location of appliance and the path for the vent system.
2. Check wall thickness where the vent system passes through, and select suitable horizontal termination according to TABLE 2. Cut the opening for the sleeve with the diameter in TABLE 2. (Cover the flue outlet to avoid debris from entering the appliance)
3. Adjust the length of the sleeve so that the end of the sleeve protrudes about 5mm from the wall. Then fasten the sleeve with the screw provided.

*Remember a stamped letter on the sleeve.

4. When the opening is too large, twist the packing provided around the end of the sleeve after peeling off backing paper from the packing.
5. Insert the sleeve to the wall and fasten with 4 screws provided. Use plugs provided if needed.

*Ensure the UP label on sleeve plate is at the top.
*If it isn't easy to insert the sleeve because the packing doesn't fit the wall, press down the packing during insertion.

6. Seal between the end of the sleeve and wall, and between the end of inner sleeve pipe and outer pipe.
7. Adjust the length of the termination by fastening it at the stamped number same as that in 2.
8. Fasten the condensation prevention plate with the screw provided.
   (In case of L termination or straight termination with reducer and elbow without additional straight length, this plate must be installed.)
9. Insert the termination into the sleeve from inside wall so that 4 studs on sleeve plate are inserted into each 4 holes on termination plate and fasten the termination to the sleeve with the 4 nuts provided.

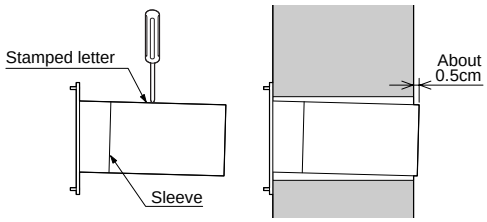
*Ensure that the label on the termination is at the top.

10. Ensure that the end of air intake pipe protrudes about 10mm from the sleeve.
11. If using straight termination, connect reducer on appliance flue outlet, and 90º elbow between reducer and termination.
    If using L termination, connect reducer on appliance flue outlet and slide the adjustable part or the termination to fit it to the flue outlet.
    Make sure that a continuously DOWNWARD slope of no less than 2º is maintained in the horizontal portion.
    Refer to Fig 4-1 & 4-2 page 42.
12. Attach facing plate for outer wall as required.

*Drill 3 pilot holes in the outer wall first. Then insert plugs to the holes and fasten the facing plate to the wall with 3 screws provided. Locate the notch of the facing plate at the bottom of the plate.
*Seal between the facing plate and the wall. Do not seal the notch.

VENT PIPE INSTALLATION

3.



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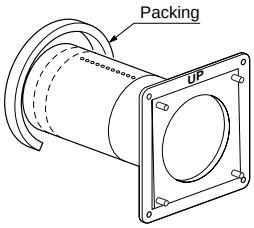

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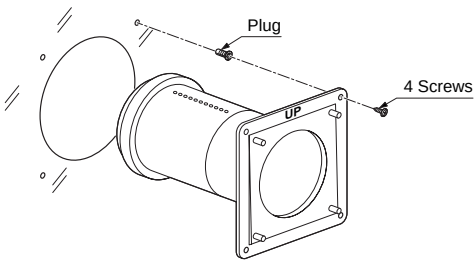

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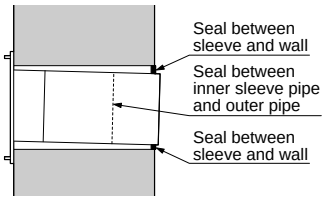

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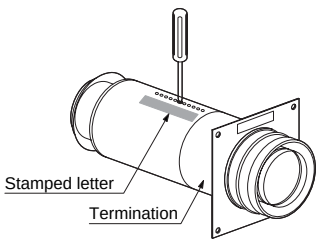

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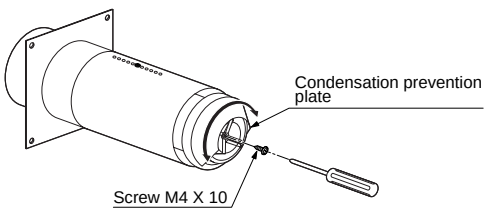

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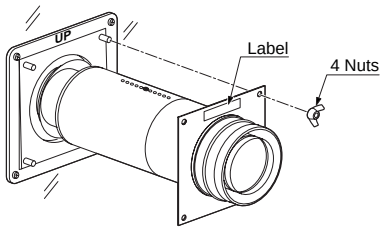

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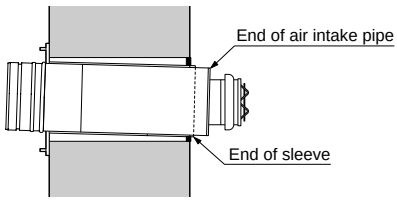

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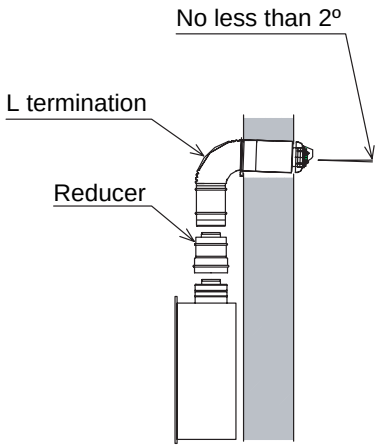
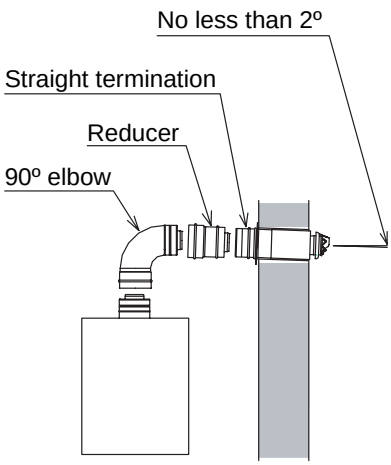
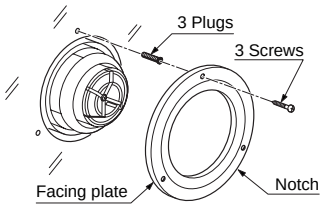


Horizontal installation [FFT-7U(L)]



Horizontal installation [FFT-7U]

12.



< Fig. 5 Detail of horizontal installation >

VENT PIPE INSTALLATION

Maximum vent length	
Number of 90º elbow	Maximum vent length
3	7.0m
2	8.8m
1	10.7m

Horizontal extended installation (See Fig. 6).

The straight termination consists of 2 parts (sleeve and termination itself). Separate them before installation.

1. Check the location of appliance and the path for the vent system. And calculate the required number and combination of items (see the dimensions of items in Fig.1).
2. Check wall thickness where the vent system passes through, and select suitable horizontal termination according to TABLE 2. Cut the opening for the sleeve with the diameter in TABLE 2. (Cover the flue outlet to avoid debris from entering the appliance)
3. Adjust the length of the sleeve so that the end of the sleeve protrudes about 5mm from the wall. Then fasten the sleeve with the screw provided.

*Remember a stamped letter on the sleeve.

4. When the opening is too large, twist the packing provided around the end of the sleeve after peeling off backing paper from the packing.
5. Insert the sleeve to the wall and fasten with 4 screws provided. Use plugs provided if needed.

*Ensure the UP label on sleeve plate is at the top.

*If it isn't easy to insert the sleeve because the packing doesn't fit the wall, press down the packing during insertion.

6. Seal between the end of the sleeve and wall, and between the end of inner sleeve pipe and outer pipe.
7. Adjust the length of the termination by fastening it at the stamped number same as that in 2.
8. Fasten the condensation prevention plate with the screw provided if this plate is needed.
9. Insert the termination into the sleeve from inside wall so that 4 studs on sleeve plate are inserted into each 4 holes on termination plate and fasten the termination to the sleeve with the 4 nuts provided.

*Ensure that the label on the termination is at the top.

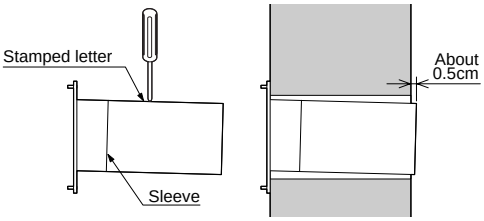
10. Ensure that the end of air Intake pipe protrudes about 10mm from the sleeve.
11. Support the vent system every 1.5m with support straps.
12. Attach facing plate for outer wall as required.

*Drill 3 pilot holes in the outer wall first. Then insert plugs to the holes and fasten the facing plate to the wall with 3 screws provided. Locate the notch of the facing plate at the bottom of the plate.

*Seal between the facing plate and the wall. Do not seal the notch.

VENT PIPE INSTALLATION

3.



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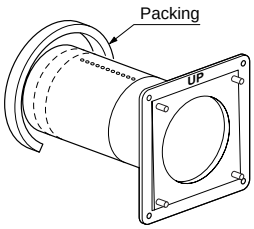

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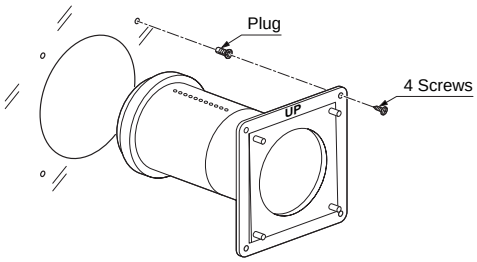

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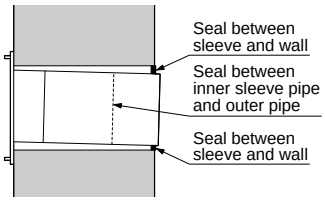

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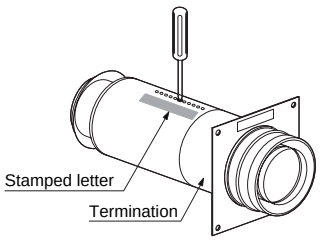

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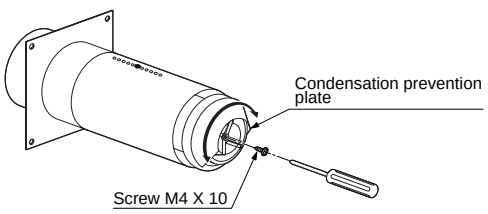

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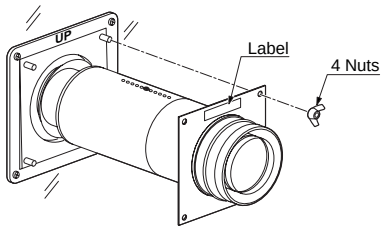

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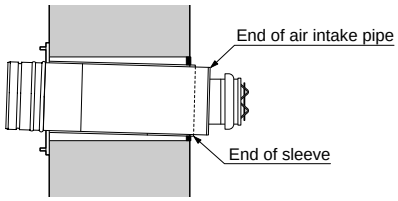

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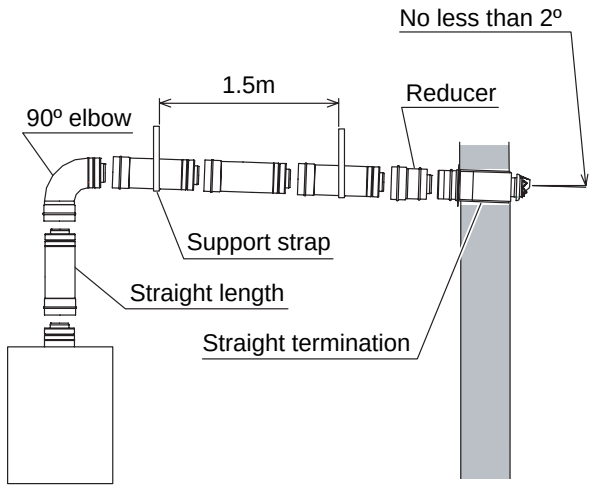
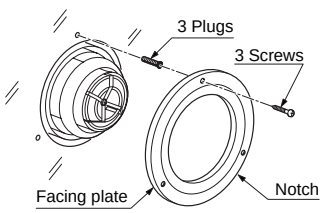


Horizontal extended installation without drain tee

12.

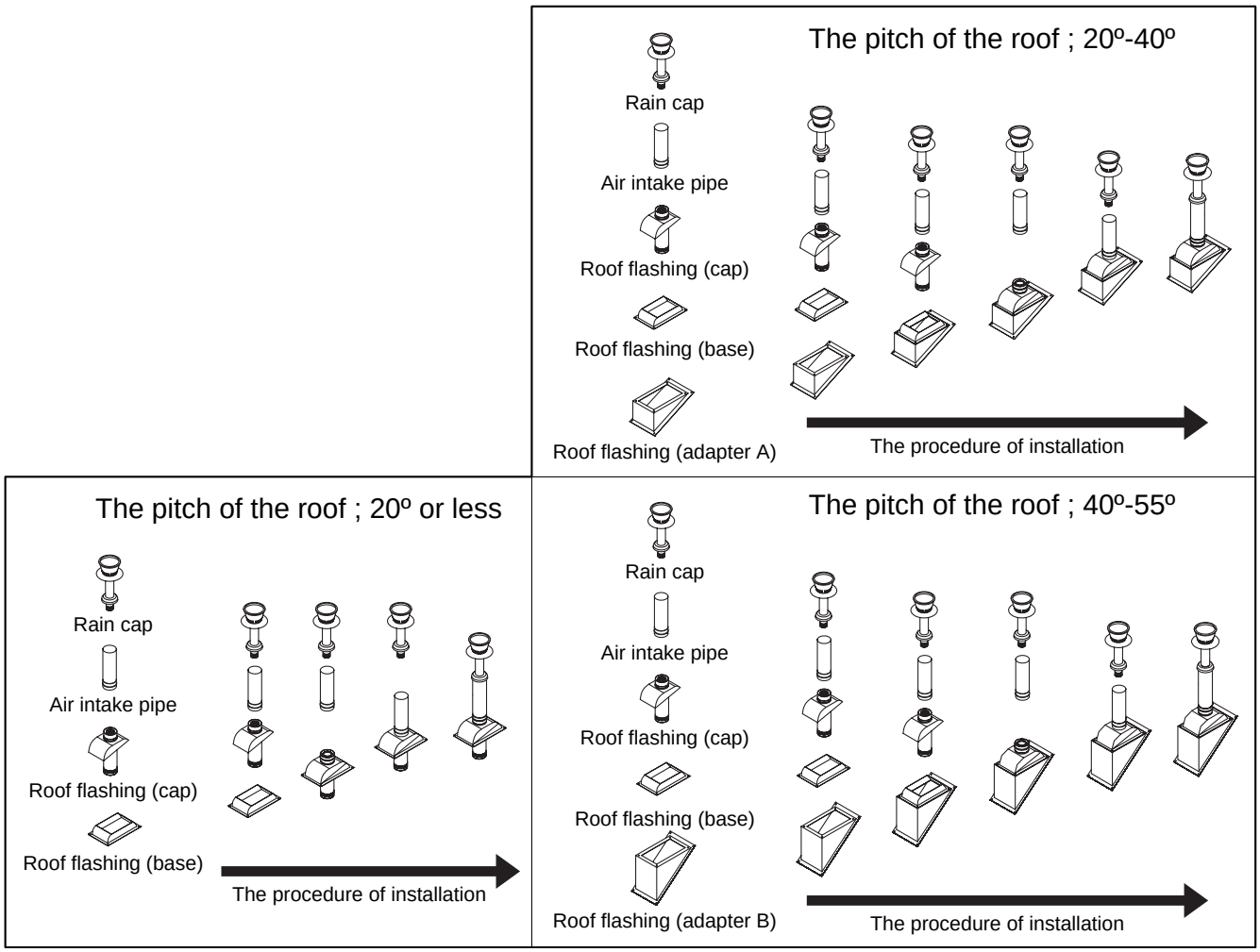


< Fig. 6 Detail of horizontal extended installation >

VENT PIPE INSTALLATION

Vertical installation.

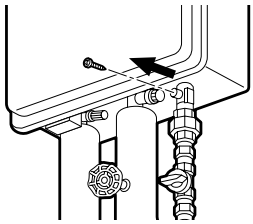
1. Vertical installation means installation of vent terminal on flat or angled roofs. It consists of rain cap, reducer, straight lengths, adjustable lengths, and elbows.
2. It shall be limited to the maximum height 1.5m.
3. Check the location of appliance and the path for the vent system. And calculate the required number and combination of items (see the dimensions of items in Fig.1, page 38) of the vent system. Check the pitch of roof where the vent system passes through.
4. Cut 135mm diameter openings(or suitable 'oval' for pitched roof) in each floor, ceiling, and the roof where the vent system passes through.
5. Install the vent system from the appliance to roof by using straight lengths, adjustable lengths, and elbows.
   Make sure that a continuously UPWARD slope of no less than 2º is maintained in the horizontal portion.
6. Support the vent system every 1.5m with support straps.
7. Once the vent system reaches under the roof, set the parts of roof flashing. The parts required and the connecting order of them depend on the pitch of the roof shown in Fig. 7.
8. Fasten the bottom part of roof flashing (cap) or (adapter) to roof with screws, nails or so on. If the 4 holes at the 4 corners of the part is larger than screws or nails, insert the 4 washers provided with the part.
9. If roof flashing (adapter) is used, connect roof flashing (base) to roof flashing (adapter) with the bolts provided with the part.
10. Connect the pipe of roof flashing (cap) to vent system.
    Adjust the angle of roof flashing (cap) so as to make the pipe of roof flashing (cap) vertical.
11. Seal between the parts of roof flashing and roof.



< Fig. 7 Detail of vertical installation >

GAS PIPING

- Install the manual gas control valve in the gas inlet connection of eternity I26.
- A union should be used to connect the unit and the gas pipe.
- Check the gas type and the gas inlet pressure before connecting.
- Remove the screw from the test plug before checking the gas inlet pressure.
  Connect the manometer to the plug with the silicon tube and measure the gas inlet pressure and confirm from the rating label on the appliance.
- Put the screw back in the test plug and fasten tightly.
- Make sure to conduct gas leakage test before operating eternity I26.



WATER PIPING

- Install a manual water control valve in the water inlet connection of eternity I26.
- A union should be used on both the hot and cold water supply lines for connection.
- Purge the water lines to remove all debris and air.
- Make sure both the hot and cold water supply lines are connected correctly.
- A filter is placed at the water supply inlet to remove debris.
  Clean the filter regularly.
  Do not operate the unit without the filter in place.
  In areas of heavy debris, such as with some wells, install a whole house water filter in line before the unit.

ELECTRICAL CONNECTION

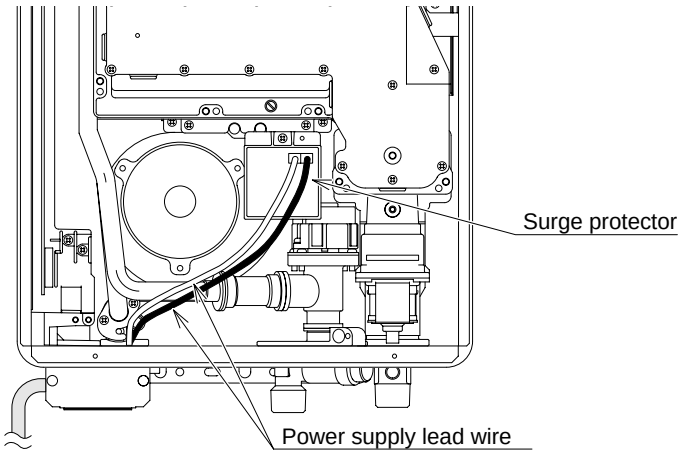
⚠ Caution

- Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.
  Verify proper operation after servicing.
  Field wiring to be performed at time of appliance installation.
- Completely turn off the power before starting the work.
  Do not turn the power on until the electric wiring is finished and all work is completed.
  Otherwise electric shock or personal injury may result.

- eternity I26 requires 240Volt AC at 50Hz.
  Disconnect the power supply if the unit is not in use for a long time.

- Remove residual water in the unit when the power supply is off because the freeze prevention in the unit will not activate, resulting in possible freezing damage.

- Do not let the power cord contact the gas piping.



WIRING REMOTE CONTROLLER

The Main remote controller model is CMR-2251.

The Bath remote controller model is YST-2251/S.

These controllers are to be fitted in the following locations:
Main remote controller - kitchen or laundry.
Bath remote controller - bathroom.

Only one of each type of controllers can be connected to one eternity I26 water heater.
(i.e. Installations with two CMR-2251 or two YST-2251/S will not function properly.)

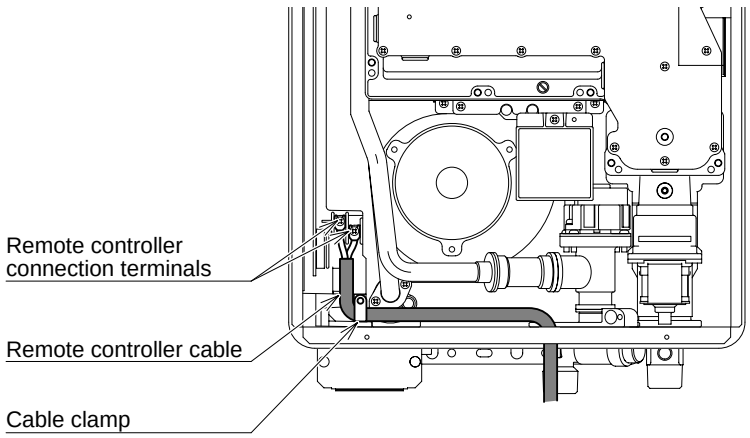
The remote controllers can be wired in parallel only depending on the distance from eternity I26 to the remote controllers.

Be sure to peel the protective film off the surface of the remote controller after the installation.
The surface is covered with a film to prevent scratches during installation.

⚠ Caution

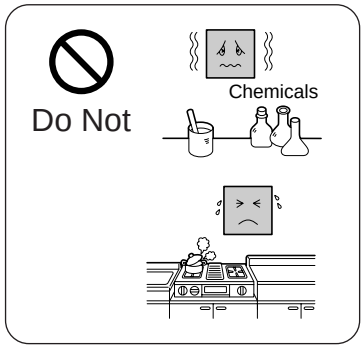
The appliance should always be disconnected from the power supply before REMOTE CONTROLLERS are connected.

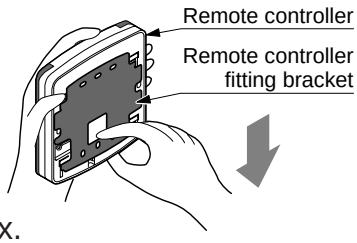
- Connect the cord to the terminal block of water heater.
  As remote controller cables are nonpolarized, they do not have specific plus and minus.
  Be sure not to touch other electronic components with the screwdriver.
- Replace the front panel of eternity I26.



MAIN REMOTE CONTROLLER CMR-2251

1) Safety precautions on Main remote controller installation.
   - Connect remote controller cable after heater is unplugged.
   - Never install Main remote controller above a combustion appliance like hot plate or a kitchen range.
     The heat will cause electrical component problems, or deform the exterior.
   - Install Main remote controller out of the reach of steam, water drop, spray of water from tea kettle, or electrical pot.
   - Do not put Main remote controller in direct sunshine.
   - It is convenient to install it where it will be used most frequently.
   - Do not install Main remote controller at the place where any commercial chemicals like ammonia, sulfur, chlorine, ethylenic compound and acids etc are used.
   - The remote controller cables carry low voltage, 12VDC digital.

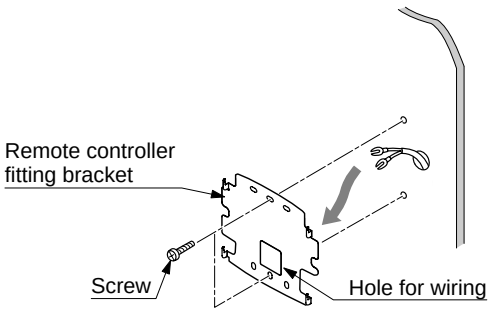


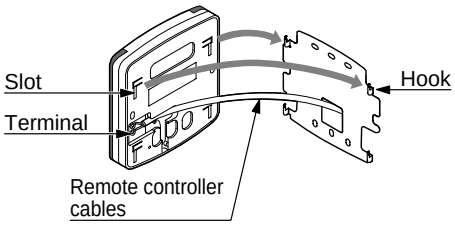


2) Installation of Main remote controller.
   - Detach the fitting bracket from Main remote controller by sliding it down.
   - Attach the fitting plate to wall.
   - Install conduit inside of wall in advance and secure the wiring box.
   - Pass remote controller cables through conduit.
     Then pass the cables through the hole of the fitting bracket and pull them out.
   - Attach the fitting bracket with screws adjusting the screw hole to the wiring box.
   - Connect the remote controller cables to the terminal for the remote controller of PCB.

In case of installing of the fitting bracket for remote controller.

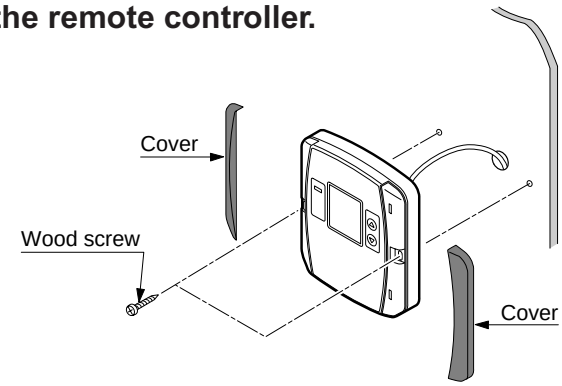
Align the slots of Main remote controller's back to 4 hooks on the fitting bracket.
Then slide them on from the top.





In case you are not using the fitting bracket of the remote controller.

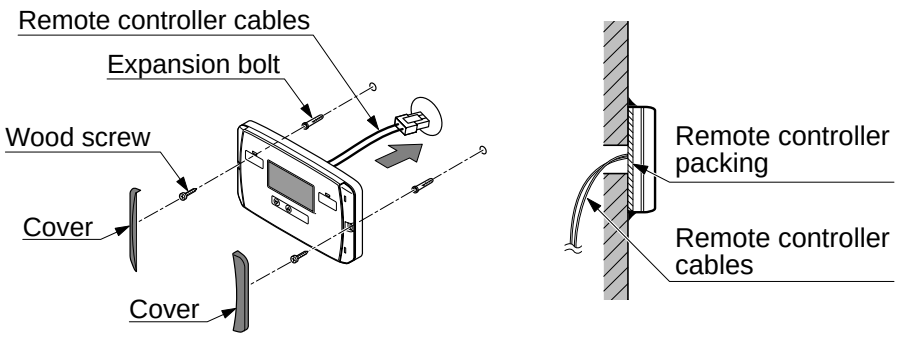
Detach right-and-left covers of the remote controller and fix them to the wall directly with wood screws. Then attach the covers again.



BATH REMOTE CONTROLLER YST-2251/S

1) Safety precautions on Bath remote controller / Ensuite installation.
   - Before remote controller installation, check the hole position considering wall stud location.
   - **Note** : Do not dismantle the remote controller due to water-proof design.
   - Do not install remote controller where water will contact the remote controller directly.
   - The remote controller cables carry low voltage, 12VDC digital.

2) Installation of Bath remote controller / Ensuite.
   - Drill a hole (more than dia about 12mm) in a wall for the remote controller cables.
   - After passing the remote controller cables through the hole, remove the packing's back paper of remote controller. Then attach the remote controller to the wall.
   - Detach both end covers of remote controller and fix the remote controller to the wall with wood screws(2 pcs) in the screw holes provided. Do not tighten the screws excessively, as the screw hole may be damaged. In case of mounting the remote controller on tile, cement or mortar, use an expansion bolt.



TESTING OPERATION

• Follow the steps below, to ensure eternity I26 has been properly installed.

Preparation for testing operation.

1. Fully open the water supply main valve.
2. Flush out the water supply piping to clean out any installation debris, clean out filter.
3. Turn on power to unit and open gas supply valve.

Testing operation.

1. Operate the unit according to " **Remote controller operation** " in the instruction manual.
2. Make sure the unit operates normally.
   • Does the burner ignite and shut off properly? Check the combustion lamp.
   The burner may not ignite at first until the air in the gas supply pipe is driven out.
   Repeat the procedure until it ignites.
   • Is temperature setting workable?
   Check if the temperature can be adjusted as desired.

Procedure after testing operation.

• If the residence is not ready for habitation or the unit will not be used for an extended time, the residual water in the unit and the pipe may freeze and damage the unit, or the residual water in the heat exchanger may deteriorate.
Be sure to remove the water in the unit and the pipe. Refer to the instruction manual.

1. Close the gas supply main valve.
2. Close the water supply main valve
3. Take off the water filter (drain stopper), drain the valve, and remove the water.
   Take this procedure when the unit cools down after the testing operation.
4. Disconnect the power, or turn off the power supply.
5. Open the faucet and shower faucet (if any) and remove the water.
6. Leave the unit in this condition until ready to use.

Explanation to customers.

Fill out the warranty form with the customer.
Explain the " **How to use the unit** " section of this instructional manual to the customer.

WARRANTY

eternity Continuous Flow

1. All eternity water heaters must be installed by a Licensed installer.
2. Only Authorised personnel must Install, Commission or Service eternity water heaters.
3. All eternity water heaters must be installed in accordance with Manufacturer's Installation Instructions and in Accordance with local regulations, municipal building codes and current AS/NZS3000, AS/NZS3500, AS3498 and AS5601.
4. If the eternity water heater has not been installed in accordance with Manufacturer's Installation Instructions or installed as to be easily accessable for servicing, a service charge may apply.
5. Where a component may have failed under warranty and is replaced, the component replaced will only be covered by the warranty for the balance of the appliance warranty period.
6. Water Quality must be within limits specified in table below.

pH	Sodium	TDS (Total Dissolved Solids)	Chlorides	Iron	Magnesium	Alkalinity (as $CaCO_3$)	Dissolved (free) CO_2	Total Hardness $CaCO_3$
6.5 to 8.5	Up to 150 mg/litre or ppm	Up to 600 mg/litre or ppm	Up to 300 mg/litre or ppm	Up to 1 mg/litre or ppm	Up to 10 mg/litre or ppm	Up to 200 mg/litre or ppm	Up to 10 mg/litre or ppm	Up to 200 mg/litre or ppm

The warranty will be rendered void in the following circumstances:

1. Failure due to misuse, Acts of God, accidental damage, installation by an installer who is not unauthorised to install an eternity water heater or incorrect installation and attempts to repair eternity by an unqualified person.
2. Repairs and service carried out by a person who is not Qualified Service Person or Authorised Service Agent.
3. Faults caused by incorrect installation, water problems, electricity supply and or gas supply

The warranty does not cover the following:

4. Subject to any statutory provisions to the contrary, claims for damages to walls, foundations etc or any other consequential loss caused either directly or indirectly by leakage from the water heater or any other faults.
5. Warranty dose not cover any faults that may arise from connecting to a water source that is nufiltered such as dams, bores, rivers etc.

eternity dose not accept liability for consequential damage or any incidental expenses resulting from any breach of the Warranty.

WARRANTY

Warranty Terms

eternity water heaters are covered be eternity for any cost of labour and parts in the event of a component failure due to any defects that may arise either from workmanship and failty material.

The Warranty commences on the date of Installation:

Domestic Appliance	eternity Product	
Heat Exchanger	Parts	10Years
	Labour	3Years
All Other Parts	Parts	3Years
	Labour	3Years
Commercial Application	eternity Product	
Heat Exchanger	Parts	5Years
	Labour	1Year
All Other Parts	Parts	1Year
	Labour	1Year

Definition of Domestic Use:

1. Units installed in any domestic dwelling.
2. Units installed in any gas boosted solar system in a domestic dwelling.
3. Units used in any household applications.

Definition of Commercial Use:

1. Units supplying kitchen areas used for bulk food preparation.
2. Units used in industrial or bulk heating processors and hydronic heating installations.
3. Units used as bulk central heating systems and flow and return systems.

Please contact your eternity office for full warranty conditions
on 1300 367 565 for all Warranty and Service information.